AMERICAN AGRICULTURIST.

Designed to improve the Farmer, the Planter, and the Gardener.

AGRICULTURE IS THE MOST HEALTHFUL, THE MOST USEFUL, AND THE MOST NOBLE EMPLOYMENT OF MAN—WASHINGTON.

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CALENDAR FOR FEBRUARY.

"The cattle mourn in corners, where the fence
Screens them, and seem half petrified to sleep
In unrecumbent sadness. There they wait
Their wonted fodder; not like hungering man,
Fretful if unsupplied; but silent, meek,
And patient of the slow-paced swain's delay."

We trust the time is not far distant when Cowper's picture of the stock yard of our northern farms will be only known in poetry. It was bad enough in the mild winters of England, a century ago. Now in our severe climate, with months of unbroken snow and ice, it should only be known as a relic of a barbarous age. We take it for granted, gentle reader, that you have already caught the more humane spirit of this nineteenth century, that your cattle are all housed, and the moan of no shivering beast mingles with the howl of the night winds as they sweep around your comfortable dwelling. Supposing that it is all right in the barn, the pig-stye, and the hen-house, let us draw up around your winter fire, and chat awhile of the coming season.

Editor.—I see you have hard coal and a grate, this winter, instead of wood and an open Franklin, with which I found you a few years ago. How does this happen?

Reader.—Yes, we farmers who live near the rivers and villages along the railroads, have begun to burn coal, and its use is increasing every year. The wood is not all cut off yet, but we are obliged to be economical in its use. As long as father lived, I kept up the wood fire. He wanted to see the blaze, and seemed to enjoy the fore stick and the shovel and tongs so much that I could not bear to cross him. But now that he has gone, and another generation has come upon the stage, we only burn wood in the summer for cooking. I find that a tun of coal will give as much heat as two cords of wood, and the cost is about the same. There is still a market for wood in the village at six and seven dollars a cord, and when I carry a load to market I may as well bring back a tun of coal as to come empty. It is equal to twice its price in wood, and there is no expense for cutting and splitting. It is the easiest way I can furnish my fuel. It is always dry and well seasoned, and requires no watching. It is easily kept up all night, and nothing freezes now in the kitchen and kitchen chamber.

Editor.—And what first led you to make this change in your fuel?

Reader.—Why, you see I always was a little foolish, and read the papers, and thought of what I read. They used to laugh at me as a book farmer, and experimenter. But they have done with that long ago. I first saw an article in an agricultural paper, a half a dozen years ago, about the increasing scarcity of wood, and the disappearance of our forests. The writer took the ground that this affected the climate, and had something to do with the drouths of summer. This set me to thinking. And then the families that I supply with butter in the village had begun to use coal, and found it much cheaper than wood. They had stoves and grates, and I thought if it was good economy there, it would pay on the farm. So I sell wood and buy coal, and find it pays. The change is coming over all my neighbors, and you will now find coal at half the houses in the town.

Editor.—So you think it pays to take the papers?

Reader.—Certainly I do. I began with one paper ten years ago, and I now take four agricultural and two horticultural papers, and consider them the best investment I make in my farming operations. They not only help my own work but that of my neighbors, who are *principled* as they say against book farming. A hint from the paper carried out successfully in my fields is sure to find its way into the fields of my neighbor next year, though he never reads any thing; no, not even his bible. But he will come over here of an evening, and talk over farm matters, and go home with the cream of a dozen papers in his noddle, that he has skimmed off of my conversation. He flatters himself that he is very conservative, and yet new ideas are invading his farm every year. Some of my neighbors have broken through the ice, and begun to take the papers, and the number of readers is rapidly increasing.

Editor.—What is your list of journals, and what do you consider the best?

Reader.—I can not give a definite answer to the last question. There is no best in the sense of excluding the others. Every one more than pays its way, and I have no doubt it is best for me to take all that are now upon my list. They cost ten dollars in all, and there is no X in my yearly expenses that I part with more cheerfully than this. Their visits are warmly welcomed, and wife and the children keep about as well booked up in them as myself.

Editor.—I am glad to hear that you will be able to keep your sons then upon the farm?

Reader.—Well, I think they will never see a brighter spot than the old homestead. The flower garden is a gem of a place in the summer, and they all have a patch where they work with their mother and sisters. The young folks took prizes at the fair for fine flowers, and for aught I can see they are as full of excitement and happiness as their city cousins.

It is not every fireside where we should find matters so much to our liking, and where the reader would find so little interruption to his conversation. But the number of intelligent cultivators of the soil is greatly increasing, and the ties that bind farmers' sons to rural life are rapidly multiplying. At this dreary season the intellectual field is cultivated with as much assiduity as they cultivate the natural field in summer. They have their cheerful fire-side, their file of new books and papers, their songs and music, and circle of happy faces. May no shadow of sorrow ever dim their luster. This month brings its duties and pleasures.

Square accounts—If it was not done last month. Let no account go over another season. Give your note if you have not the money for all indebtedness. It will save you from foolish expenditures, and make you study economy more closely.

Planning your work for the spring and summer should not be deferred longer. Determine the use of every field, the crop, the seed, and the manures. If short of stable manure, either cultivate less land or buy No. 1 Peruvian guano. Land can not be cultivated with profit without manure; and a heavy dressing pays much better than a less quantity.

Map your farm, if you have not already done it, so that you can see at a glance every field, and every tree in your orchard. This will facilitate your keeping debit and credit with every field. You will learn something then of every crop and every field, with each passing year.

Cut scions this month, if you find any choice varieties of fruit when away from home. If upon your own premises, it can be delayed until next month. Put them in a cool damp cellar in sand, and they will not shrivel very much.

Trim grape vines.—This should not be delayed beyond this month. Vines trimmed in March do not have time to sere over their wounds, and will sometimes bleed badly. Improve the first pleasant day with your knife. Trim closely, and expect grapes with confidence.

Examine your fruit trees.—The young

ones need watching when the snows fall. They are often buried under the banks, and will be broken or destroyed if they are not dug out. A few hours work at the right time will save you many dollars.

Seeds.—Have them all in readiness. Assort the potatoes and put the seed in barrels by themselves. If you have a surplus, market them now. They will be poor property in June. Let all the garden seeds be selected and labeled, and put in the right place. Seed sowing is a busy time, and an hour spent then in looking up some mislaid package will be a vexation to mar the happiness of a whole day. February is the gate of the opening year. Let it be rightly improved in making ready, and you will pass on smoothly through the seed time and harvest.

BRUSH SWAMPS.

Few lands are richer in vegetable matter than the brush swamps of our country, and yet there are millions of acres of them still left untouched—harbors for all sorts of vermin—the fruitful sources for billious fever and ague—and huge eye-sores in the landscape. When cleared and drained, these swamps are oftentimes found to be ten times as productive as the adjacent uplands; and yet our farmers have gone on cultivating the uplands in preference to them for scores of years, although it has often cost more to cut off the forest, blast the rocks, and pick up the stones of the former, than it would to have drained the swamps.

Now, while frozen over, is the best time to cut off the brush and wood from swamps, as it is the only season when their surface will bear a team to carry off the rubbish; it is also an excellent time, when not covered with snow, to burn the brush. The main ditches for draining can also be more easily dug at this season than any other, and farmers usually have more leisure for this kind of work; in fact, with many it is their only chance throughout the year for such improvements.

Since mowing machines have come into use, swamp lands may be made much more valuable than ever; as they usually present a nearly perfect level surface, in which they can operate with considerable greater facility than on uplands. Besides, no lands are so well adapted to grass, for they are rich, cool and moist.

The great fault in draining swamps generally is, that the ditches are not cut sufficiently deep, especially the main ones. Three feet ordinarily is the least we should say for these, while four or five feet would be still better. The cross drains may be two feet or so—nothing less than this. The advantage of deep main drains is to dry the surface quickly and sufficiently to grow the best sorts of cultivated grasses the first year, or even to take off a crop of corn or potatoes.

New-York State Agricultural Society.—The Annual meeting opens at Albany on the 13th inst. These winter meetings furnish a capital opportunity for farmers to come together, to get acquainted and talk over various agricultural topics, without the excitement attendant upon the annual exhibitions.

DECISION OF THE GREAT REAPER CASE IN FAVOR OF MANNY'S MACHINE.

We subjoin the recent decision in the important case of McCormick *vs.* Manny, for alleged infringement in reaping machines, and a very satisfactory decision, we doubt not, this will prove to the great mass of American farmers. It has become quite the fashion of late for inventors of exceedingly moderate merits, but of very great pretensions, who have invented a little and claim a great deal, or what is much more common, for non-inventors who have got hold of some patent, and hope to realize largely from it, to attempt excluding all subsequent inventors who have secured some highly improved machine or implement to effect a similar result; and this, too, when there is scarcely a shadow of resemblance to the previous machine, which, in too many cases, is a mere copy itself of an antiquated patent or forgotten machine. We are glad to perceive our United States Courts, while firmly protecting new, peculiar and important principles in mechanics, are determined on not shutting the door against all subsequent improvements. The genius of our institutions and national character is against monopolies, and especially such monopoly as shuts out the efforts of enterprise and talent, which have made our country what it is, and which are destined to carry it rapidly forward in a career that will soon distance all competitors.

The above case was argued last Summer at Cincinnati by Hon. Reverdy Johnson and E. N. Dickerson for Mr. McCormick, and E. M. Stanton and George Harding for Manny & Co., defendants. Judge McLean delivered the opinion of the Court at Washington on the 16th ult.; the decision on all points is in favor of Manny, the defendant. The Court held:

1. That Manny's Reaping Machine does not infringe any of the patents of Mr. McCormick.

2. That the leveler and reel-post used in Manny's machines are not the same, in form or principle, as the improvements patented by Mr. McCormick in 1845, and are no infringement.

3. That several useful improvements, invented and patented by John H. Manny are not covered by McCormick's patent, but are different in form and principle, and, consequently, no infringement.

The injunction was refused and the bill dismissed at cost of complainant. The Court fully sustains the validity of McCormick's patents, and pays a high compliment to the patentee. An appeal has been taken to the United States Supreme Court.

The opponents of any idea, founded on reason and common sense, are like men striking among live coals; they may scatter them, but only to make them kindle and blaze in spots that otherwise they never have touched.—Goethe.

ROSES—DIRECTIONS TO THE UNINITIATED.

No flowering plant is more appropriate—more indispensable to the house-yard and garden, than the Rose. Nothing adds so much of beauty and attractiveness, at so little cost. They may be obtained of a thousand hues and forms, and in varieties almost illimitable. Some European catalogues have contained the names of five or six thousand separate varieties, and any respectable American catalogue contains the names of a thousand or more. But the farmer, as well as he who has but a few hundred square feet, has no call for such a list. For his purpose, a dozen, more or less, is amply sufficient. The difficulty is to select this small number of those which are really the most valuable; and to aid in this selection is the object of what follows. Let us first, however, give a general view of a system of classification, which will be useful to even those who desire only half-a-dozen.

There are three general classes of Roses, including several subdivisions.*

I.—Those that bloom at several distinct periods throughout the season. These are called Remontant (or growing again) Roses.

II.—Those that bloom continually without any temporary cessation, called Ever-Blooming.

III.—Those that bloom only once in a season.

The First Class (Remontant) includes only the Damask, and those called the Hybrid Perpetuals.

The Second Class, or Ever-Blooming, includes:

1. The Bourbon Roses—Known by their luxuriant growth, and thick, leathery leaves. The most of them are perfectly hardy.

2. The China Roses—including the Tea-scented, and the Noisette or cluster-blooming roses.

3. The Musk—known by its odor and rough appearance.

4. The Macartney—known by its very rich, glossy foliage, almost evergreen.

5. The Microphylla—distinguished by its peculiar foliage and straggling habit.

The Third Class, or once-blooming, includes:

1. Garden Roses.—This embraces a number of varieties, such as the French, Provence, Hybrid Provence, Hybrid China, Hybrid Bourbon, White, and Damask Roses.

2. The Moss Roses.

3. Briar Roses—including the Sweet-Briar, Hybrid Sweet-Briar, and Austrian Briar.

4. The Scotch Rose.

5. Climbing Roses, of which there are a number of varieties, such as the Rubifolia, the Sempivirens or evergreen, the Ayrshire, the Banksia, the Boursault, the Rosa Multiflora or cluster-blooming, and others.

Several of the above are not hardy, and many are not adapted to general cultivation.

Supposing that we have no piazza or walls for roses to climb upon, we should select for out-door cultivation on a small plot, first

* We follow the simple and beautiful classification of Mr. Saml. B. Parsons, in his admirable work upon the Rose.

from the Remontants and Ever-blooming, adding a few Moss and a few Garden or June roses.

For our first selection, if we could have but one, we would take from the Remontants a "Hybrid Perpetual," called "Giant of the Battles," (*Geant des Battailes.*) This Rose is distinguished for its brilliancy of color and free blooming. It is perfectly hardy, and has been thoroughly tested.

For our second selection, if we could have but two, we would choose from the Ever-Blooming, a Bourbon rose, called the "Souvenir de la Malmaison," which is perfectly double, a very large, bold flower, delicate pale flesh-color, tinted with fawn. It is quite hardy, though requiring slight protection during Winter in very cold situations. If killed down to the ground, it will spring up rapidly. It blooms very early in the Spring.

For our third rose, if we could have but three, we would take the "Palace du Crystal," from the Remontants,. a bright, pinkish rose, deeply tinged with bright fawn. It is of strong habit and a robust grower.

For our fourth rose, if we could have but four, we would select the Amandine, also a Remontant, which has a delicate rose color, and a very large and full flower, and like he others is hardy.

For a higher number, aside from the Moss and Garden roses we would select for a small plot of ground as follows:

5. Appoline—a Bourbon.
6. Baron Prevost—a Remontant.
7. Cardinal Fesch—a Bourbon.
8. Lion of Combats—a Remontant.
9. Enfant d'Ajaccio—a Bourbon.
10. Baron Hallez—a Remontant.
11. Jupiter—a Bourbon.
12. Caroline de Sansal—a Remontant.
13. Madame Desprez—a Bourbon.
14. Genie de Chateaubriand—a Remontant.
15. Bourbon Queen—a Bourbon.
16. Augustine Mie—a Remontant.
17. Boquet de Flora—a Bourbon.
18. Dolphine Gay—a Remontant.
19. Mrs. Bosanquet—a Bourbon.
20. Sydonie—a Remontant.

The above constitute a fine selection for a small place where the roses are designed for common out-door, hardy culture. With them we should intermingle a few of the Moss Roses, which, though having a less brilliant flower, add beauty and variety to the collection by their mossy buds and calyxes. The most choice of these are the Alice Leroy, Lee's Brilliant, Cristata or Crested Moss, General Drouet (a perpetual bloomer), Nuitt's de Young (Young's Night Thoughts), a very dark rose, and White Bath.

To the above may be added some of the Once-Blooming or June roses, which, though blooming but once, produce most magnificent flowers. Of these the most desirable are the Blanchfleur (white flower), Brennus, Chenedole, Coupe de Hebe, Madame Plantier, Julie d'Etranges, Kean, Rien ne me surpass (nothing can surpass me), Schismaker, &c.

Those who have piazzas, walls or arbors will select from the Climbing roses the following, which constitute a fine variety, the most desirable being placed first:

For the best red, the Prairie Queen; for the best white, Baltimore Belle; then the Perpetual Pink, Pride of Washington, Milledgville, Elegans, Gravelle or seven sisters, Gravelli Graulthii (pure white), Laura Devoust, Felicite Perpetual, Madame d'Arblay, Sir John Seabright, Russelliana, Princess Marie, &c.

All the above are strong growers, which often climb 25 feet in a season.

Having thus given a list for selection, we will in our next furnish some practical directions for cultivating the different varieties.

GARDEN SOILS.

A good garden may be made by skillful management, upon almost any soil. But the results will differ somewhat according to the nature of the soil; where the soil is a moist, heavy loam, resting upon a clayey subsoil, crops can not be obtained as early as upon a different soil. But by tillage adapted to the nature of the soil, large heavy crops may be obtained for fall and winter use. Upon such soils only one crop can generally be obtained, in a season. Such soils should be well drained, and cultivated in beds or ridges, so that the surface water may be conducted, off, and not be permitted to injure land already sufficiently moist. Horse manure is the best dressing for such soils, when cultivated as a garden, and should be liberally supplied, and well plowed in. Such land is apt to bake and become hard; consequently it requires to be frequently stirred during the growth of the plants. Such a soil is well adapted to the growth of pears and quinces.

When it is an object to obtain early crops, as in the cultivation of market gardeners, a light, sandy loam is preferable. When such a soil is made rich by high cultivation, the crops are earlier, more sure and the soil is more easily worked. Many of the most productive gardens in the neighborhood of Boston are made upon light sandy plains that were previously exhausted by cultivation without manure, and that have been redeemed by judicious management. The plow is put in as deep as it can be made to run, and the whole of this depth is made fat by liberal supplies of warm, stimulating manures. It is an important object with market gardeners to get early crops, and they are able to get them in such a soil, two, three and four weeks earlier than in a heavy loam. This gives them a longer season, and by a skillful management of successive crops, they get two or three crops in one season. Apple trees succeed well on such soils. When the ground is enriched by high manuring and the cultivation of hoed crops, the trees grow rapidly, and come into bearing some years sooner than in a colder and heavier soil. They start earlier in the spring, and, of course, have a longer season to grow, and the wood which they make becomes better matured and prepared to endure the cold of the ensuing winter.

In such soils, fall sowing is often practiced to advantage. Onions, beets and lettuce are sowed in September and covered with salt hay, rock weed or meadow hay; the mulching is removed early in March, and the ground between the rows stirred, and onions and beets are thus obtained for the market in June, or early in July. Vegetables at this season command nearly double the price that they do later in the season. Three crops are often obtained from the same ground. A portion of ground is plowed as soon as the frost is out, and a heavy dressing of horse manure is plowed in. Early peas are planted in rows perhaps five feet apart; then radishes are sowed broadcast, and raked in. The radishes are pulled before the peas are all picked. Between the rows of peas are planted at proper times, squashes, melons or cucumbers; by the time the vines begin to run, the radishes and peas are removed from the ground, and the whole surface is left in possession of the vines. Early potatoes are taken off in July and the early part of August, and a full crop of turnips is made to follow. Or after peas and potatoes, onions and beets are sowed for the spring market. After lettuce and radishes, cabbages are set for fall use. Many such gardeners start vegetables in hot-beds under glass; thus they obtain potatoes, tomatoes, cabbages and cucumbers some two or three weeks earlier than by open culture, and the increased price amply repays them for the outlay of capital and labor.

Strawberries succeed admirably on such soils, especially if in addition to high culture irrigation is employed. Some of the strawberry gardens in the vicinity of Baltimore, consisting of from ten to one hundred acres, are made of worn out sandy land, which has been redeemed by cultivation. One gardener in the neighborhood of Boston, receives more than three thousand dollars annually for the vegetables and fruit grown upon twenty-six acres of such land. His proximity to a ready market, and to an abundant supply of manure, are circumstances which contribute greatly to his success. But high culture, and a skillful arrangement of successive crops are the essential conditions of his prosperity. I do not believe he would make as much money in proportion to his outlay, in the cultivation of a heavy loam, although the soil is in itself much more fertile. Early crops could not be obtained on such a soil, and these are a chief source of profit. Apples would not succeed as well as on a lighter and more sandy soil. From four Porter apple trees on such a soil, apples have been sold to the amount of more than a hundred dollars in a year. This, to be sure, is an extraordinary product, and was owing to the superior quality of the fruit; but under such culture on a sandy soil Baldwins, Greenings and Russets will yield from four to five barrels to a tree, worth from two to four dollars a barrel. On such a soil peaches and plums thrive better than on any other, and bear full crops in four or five years from the stone.

Let no man say he can not have a good garden, because he has only a piece of poor sandy land. On such land, he can have

earlier crops than his neighbor who has a deep, rich, moist loam; and if he does not have so heavy a crop, he can have two to his neighbor's one. Plow early and deep, and put on manure with a liberal hand, and you shall have a luxuriant garden, where you have now an unproductive and barren patch.—R., in N. E. Farmer.

HOW FARMING IS DONE IN EASTERN CONNECTICUT.

A correspondent residing some thirty miles east of Hartford, Conn., in a private letter remarks incidentally upon the condition of agriculture in his vicinity. What he says applies not only to many parts of Connecticut, where we have traveled, but to a thousand other places in the country at large, and we trust he will pardon us for making the following extract from his letter:

* * * The mass of our farmers do not take any agricultural paper. The farming in this vicinity, with a few note-worthy exceptions, is carried on in the old (I had almost said antideluvian, manner, our farmers being rigid conservatives, take care to do just as their great-grandfathers did before them.

Book-farming, is folly, and scientific culture a humbug, in their estimation, and it seems almost impossible to start the great body of the farmers in the rural districts from their old plow-jogging routine.

How many farmers that now only just rake and scrape a living, if they would only open their eyes, take a good agricultural paper—which they can no more afford to do without than without a cow—learn the first elements of agricultural science, and judiciously apply their knowledge, would soon be on the high road to competence and wealth.

On very many farms there are acres of valuable swamp lands, with inexhaustible mines of muck; old plains, now used for sheep pastures, &c., that need only the subsoil plow and the right fertilizer, to make them yield a golden harvest; in short, how much of the best farms lie waste and useless because farmers will be ignorant.

How slow also are farmers to learn the value of fruit-growing, especially choice fruit, which grows just as easy as any other.

The world does move, and farmers, though slow, have made some progress. I notice more dispotion to use such fertilizers as guano, super-phosphate of lime, &c., though in many cases applied most injudiciously; yet it is a sign of progress.

I presume, however, that three-fourths of those who used these concentrated fertilizers last year, lost more manure by failing to save and take care of it, by the escape of the fertilizing properties, than all their guano, &c., would amount to. I know of but one barn calculated with vaults and sheds to secure all the manure, liquid and all.

An evenness of living hath too much confinement in it. Men will be rather more or less, than always the same.

HOW ARE YOUR BEES THIS WINTER?

Some people think bees not worth their attention. We do not so think. We have kept them for twenty-five years, and they have always repaid us for their care in abundance of delicious honey, every year. They require *some* care, it is true. So does everything from which we get any benefit. Some think that bees require a great deal of *science* to manage them. It is not so. They are just as simple in their management as a hen with a brood of chickens—but not in the the *same* way. *Ignorant* people talk about "luck" in bees. So they do in everything else they have. Some seasons are better for bees and honey-making than other seasons; but these must be understood. A bee will not be robbed with impunity in a bad honey season any more than a cow or a sheep will; and the season and the temper of the hive must be consulted, and not take honey from them when required for their own subsistence.

The last was a bad bee year. On account of the cold and the wet in May and June—the two bee-months of the year—they neither swarmed well nor did the flowers yield their usual supplies of honey. Therefore the honey-crop was light, and some folks complain that they had no "luck"!

To manage bees well you must have a good, understandable treatise on their management, by a man who knows all about them. Quinby is one of the best authors. His book is to be found in all agricultural book stores. Consult him, and then, with your own common sense added, you can not go far amiss in your bee culture.

Winter is the best time to buy and remove bees, if you have none, and we can safely advise every country dweller to get a swarm or two, and raise their own honey. Try it.

MORE ABOUT "THAT PUMPKIN."

To the Editor of the American Agriculturist:

Your January No. contains a notice of a "bitter pumpkin," a specimen of which I also received, through the attention of Messrs. Balch & Son, of Providence. I can not but commend your caution in testing its quality by proxy, a more direct experiment convinced me that your "sub" was justified in any contortions of visage which might express his disgust. There are several members of the family to which the squash and pumpkin belong, which possess the quality of bitterness in an eminent degree, and among them are the *colocynth*, which furnishes the "bitter apple," one of the most nauseously bitter of all of the disagreeable articles of medicine, and the *mock orange* or *orange gourd*. The latter is frequently cultivated, especially in the country, as an ornamental vine; it bears a profusion of fruit about the size and color of an orange, though some varieties are curiously marked with bands of very dark green. This is also intensely bitter, and is known among the French as *false colocynth*. It is well known that the squash family, including squashes, pumpkins, cucumbers and melons, are among the plants which are most disposed to produce hybrids or crosses (as many a farmer who has planted the seed of the "real crook-necks," and harvested a crop of nondescript no-necks can testify); and it is highly probable that the "bitter pumpkin" is the product of a spontaneous crossing of the mock orange with the common pumpkins. This supposition is strengthened by finding upon the section sent me some markings, though mere lines, of the dark green peculiar to the variegated forms of the mock orange. It would be interesting if Dr. Whitman would take the trouble to cultivate this bitter variety at a distance from any other pumpkins. In all cases of crosses of the kind I suppose this to be, there is a tendency among the progeny to sport, and to return to the original condition of one or the other parent, and it is very probable that, among the otherwise not very valuable crosses, some individuals might be found which would satisfactorily establish the origin of "that pumpkin."—G. T., New-York.

FARMERS, "FIX UP" YOUR HOMES.

We are not about to descant upon the pleasures of a neat and tasteful farm residence, nor of its usefulness as a means of attaching the younger members of a family to the paternal home; nor yet of the humanizing and elevating effect upon the proprietor himself. Much has been said, and much remains to be said upon these topics. We now offer only a word upon the direct *profit* of such improvements.

Let us take, for illustration, two farmers side by side, similarly situated as respects markets, convenience to schools, churches &c., and both equal in the native or acquired fertility of soil. Allow also that both have equally good buildings, houses, barns and other out-houses. But suppose one of these dwellings has a fine yard or grassy lawn with a moderate supply of well selected shade trees and flowery shrubs, and a garden stocked with fruit trees of various kinds, and supplied with well arranged plots of vegetables; while the other dwelling is devoid of these surroundings, save perhaps a shade tree or two, and a garden containing an onion bed, a potatoe patch, a few hills of corn, cabbages and other common vegetables. Now let a third person visit these two farms with a view of purchasing one of them. How many hundred dollars more will he pay for the one having upon it the adorned and beautiful home ready prepared for him? We leave the reader to answer.

DO NOT WASTE THE COAL ASHES.

These contain not a little potash derived from the wood or charcoal used in kindling, and they furnish some fertilizing materials in their own composition. We have ourselves made an excellent garden plot on quicksand, thrown from a cellar into a hollow. The only manure was a thick coating of coal ashes and a fair supply of leaves and weeds taken from the roadside. Coal ashes and cinders are first-rate for heavy clay gardens and fields. Try them—they can not do harm, and it is about as easy to put them

where they may do good as it is to dump them into the street.

WATER FOR CATTLE IN WINTER.

If you have not made provision for this indispensable article, you are now feeling the inconvenience of the neglect. It is a serious undertaking to drive all the stock from the barn a quarter or half a mile to a spring or brook, and cut holes in the ice for them. The snow is often deep, the ice slippery, and the weather intensely cold. Accidents sometimes happen—a limb is broken by a fall, and the weaker animals do not get a full supply of water. The animals are thoroughly chilled through by the ice water and the cold, and it takes a large quantity of food to restore their bodies to their natural warmth. There is a great loss of flesh from your cattle, of hay from your barn, and of money from your purse, by this daily journey to a distant watering place. The loss is enough, on a large farm, every winter, to pay for permanent fixtures for watering in the barn, or in the yard. Now while you and your cattle are suffering from the inconvenience, make your plans to remedy it.

If there is a living spring on high ground within a half mile of your barn, bring it into the yard with a lead pipe. With a large trough as a reservoir, a pipe of small bore will furnish an ample supply. This can be done before another winter sets in, and will not be a very costly affair. If there is no spring or brook that you can make available, it is quite possible that you can dig a well on the nearest high land that will give fall enough to conduct its waters where you want it. An examination of the ground, and the use of a water level, will enable you to decide upon its practicability. If this can not be done, the next best thing is a cistern on one side of your barn cellar, or if you have none, under your barn; as a rule a barn roof will catch water enough to supply all the cattle it shelters during the three months of winter. If properly protected it will not freeze, and if you have a stop-cock from the cistern emptying into the water trough, it will be found a very convenient and economical method of supplying a barn with water. We have used a cistern for this purpose two winters, and find that it answers all our expectations. Immediately adjoining it is a oot room, and we find a large body of water so near is a great safeguard against frost. In mixing cut hay and meal with roots, as every good farmer should in winter, it is a great saving of time to have the water in the same room with the other materials. But if you will not build a cistern, you can at least dig a well and furnish it with a bucket and trough. This, to be sure, will take time and labor, but it will be found far less expensive than to suffer your cattle to go a long distance to drink, shivering with the cold, wasting their droppings, and iujuring your mowing fields. For it is a well ascertained fact, that both pastures and meadows are damaged by leaving the snow trodden down hard upon them in the winter. In some way provide water for your barn, and let this nuisance of freezing cattle be abated.

RADISHES IN MARCH.

Now is the time to be thinking of the frame and glass to plant the seeds under, if you really mean to indulge in that luxury. Dr. Kane found them at Upper-navik, in northern Greenland, grown in the garden of the Governor of that Danish settlement. "A little paling, white and garden like, inclosed about ten feet of prepared soil, covered with heavy glass frames; under which, in spite of the hoar frost that gathered on them, we could detect a few bunches of crucifers, green radishes, and turnip tops." * * *

"At last came the crowning act of hospitality; on the bottom of a blue saucer, radiating like the spokes of a wheel or the sticks of a Delaware's camp fire crisp, pale yet blushing at their tips, and crowned each with its little verdant tuft—*ten radishes!* Talk of the mango of Luzon and the mangostine of Borneo, the cherimoya of Peru, the pine of Sumatra, the Seckel pear of Schuylkill meadows; but the palate must cease to have a memory before I yield a place to any of them along side of the ten radishes of Upper-navik."

You may not have the Doctor's experience of a year's residence on the Polar sea to sharpen your appetite, yet radishes next month at your tea-table will be a treat worth looking after. You can have them with half the pains taking of the Danish Governor, and in much greater abundance. It does not require high heat or very thick glass to secure them. A hot-bed four feet by ten, started the middle of this month, will give you radishes before the markets afford them. Gentlemen who have their greenhouses, and are now luxuriating upon fresh strawberries from their own pots, do not of course need our exhortation. But those who have not yet this convenience for winter luxuries, may accomplish much with a hot bed. The capabilities of the hot-bed are far from having been exhausted.

NEW-YORK STATE POULTRY SOCIETY.

The annual exhibition of this Society opens at Van Vechten Hall, Albany, on the 12th inst., and continues through the 13th and 14th There is a prospect of a fine show, and as we hear of no move towards a National Show in this city, there will be a considerable concentration of interest in the show at Albany. The Cor. Sec., E. E. Platt, of Albany, has furnished us with the names of the following Judges:

1. Of the largest and best variety—Geo. Vail, Troy; A. A. Hudson, Syracuse; L. F. Allen, Black Rock.

2. Of the larger Asiatic Fowls—George Vail, Troy; J. M. Lovett, Albany; John H. Cole, Claverack.

3. Of other Gallinaceous Fowls—A. A. Hudson, Syracuse; R. U. Sherman, Utica; Wm. Frothingham, Albany.

4. On Aquatic, Pea and Guinea Fowls, and Turkeys—Lewis F. Allen, Black Rock; R. C. McCormick Jr., N. Y.; R. L. Colt, Paterson, N. J.

5. On Pigeons, Singing Birds, and Rabbits—C. S. Platt, N. Y.; R. R. Bingham, Albany; T. C. Abraham, Watervliet.

FARM WORK GETTING EASIER.

When we were boys, and that not long ago, a dozen implements comprised about all that were constructed to lighten the labors of farmers and farmers' boys. The plow, harrow, hoe, spade or shovel, scythe, cradle, sickle, rake, pitchfork, fanning-mill, and two or three others, comprised the list to be looked to or looked after. We well remember the first threshing machine that came into "our neighborhood," followed soon after by a "patent" fanning-mill; and what light work the horse-rake made; and how our backs straightened up when we got our first cultivator; and we might describe the wonder and delight excited at the introduction of each successive new implement, but our readers perhaps recollect these things as well as we do, and their imaginations will supply the materials of the article we might write on this subject.

We do not remember a single establishment devoted exclusively to the sale of agricultural implements twenty years ago, and now we could reckon up hundreds, many of them selling tens of thousands, and many of them hundreds of thousands of dollars worth of farm labor-saving machines every year.

We have before us a catalogue of agricultural implements sold by one dealer, and it would require this whole page to print the names only of the things he offers. In the last Patent Office Report printed, we find a record of 1,760 patents for new machines granted during 1854, and 171 of these, or one-tenth, are set down as agricultural implements, leaving only nine times as many for all the other various departments of manufactures. Improvements are going on at a rapid rate, and we can hardly predict to what point we shall arrive even in ten years to come. We already sow our grain, harvest and thresh it, by machinery; and very soon the steam engine will be hitched on to these implements, and to the plow and harrow besides, and we shall only need to watch these silent but faithful forces while they do our work. Young farmers and farmers' sons, wake up and catch the spirit of this age, or you will ere long be left in the back ground.

TO MAKE LARD AND TALLOW CANDLES.

The following method of making the above named candles is described in the New-England Farmer by a correspondent: "I kept both tallow and lard candles through the last summer, the lard candles standing the heat best, and burning quite as well, and giving as good light as tallow ones. Directions for making good candles from lard: For 12 lbs. of lard take 1 lb. of saltpeter and 1 lb. of alum; mix and pulverize them; dissolve the saltpeter and alum in a gill of boiling water; pour the compound into the lard before it is quite all melted; stir the whole until it boils, and skim off what rises; let it simmer until the water is all boiled out, or till it ceases to throw off steam; pour off the lard as soon as it is done, and clean the boiler while it is hot. If the candles are to be run, you may commence immediately; if to be dipped, let the lard cool first to a cake, and then treat it as you would tallow."

THE CAMELLIA.

WHICH TO SELECT AND HOW TO CULTIVATE.

There are peculiarities about this noble plant which give it a place preëminent among all flowering plants. Whether we consider the beauty of its glossy dark green foliage, the splendor of its rich-colored rose-like flowers, or the length of time it is the chief ornament of our greenhouses during the winter months, it is admired by all, and deservedly so.

The Camellia is a native of China and Japan, from whence it was introduced into British gardens in the year 1739. In 1780 there were in cultivation, the single red, the old double white, and the old red striped. Since that time there has been introduced from China the species and varieties—Camellia curyoides, white; C. Kissii, white; C. oleifera, white; C. reticulata, red; C. sasanqua, rose; C. single white, and double red. From these have been raised, by hybridization and cultivation, in this country and Europe, the many fine varieties which are now the glory of our greenhouse; and very recently there has been added, by Mr. Robert Fortune, a collector sent to China by the London Horticultural Society, a yellow Camellia. Although a great acquisition, it is not a double imbricated flower, but proves to be one of the anemone flora tribe, the exterior petals being French white and the central ones rich primrose yellow.

In order to cultivate the Camellia with success, a suitable soil is of the first consequence. The one best suited to this plant we have found to be a fibrous, mellow loam, rather inclined to adhesiveness, to which may be added a small portion of sand. The soil should be procured, if possible, twelve months or more before required for use, during which time it should be frequently turned over and the turf chopped small with the spade, but not sifted. In potting, give a free drainage, adding a little coarse charcoal, over which place a thin layer of moss. Have the soil moderately dry, and in filling it round the ball, take care to do it in regular layers, pressing it rather firm, so that no space be left. The safest and best time to re-pot Camellias, is soon after they have made their young growth, as soon as the young leaves are perfectly developed, and the end of the young wood at the point of junction with the wood of the former year begins to turn brown, and the flower-buds can be just seen. The ball of the plant should be rather moist at the time of repotting, and if in a very pot-bound state, should be immersed in water for an hour or so—allowing a day for the superfluous water to drain off before potting. After potting, the plants should be placed under cover, and protected from drying winds and sun for a few weeks.

As the flower buds advance, the plants must be well watered at the root whenever they require it, using twice a week liquid manure made from old rotten dung, in the proportion of one part liquid manure to four of clear water. The plants will now possess abundance of new fibers, and their powerful action, assisted by liquid manure occasionally, will produce both a fine plump bud and dark leaf, and enable the plant to store up abundance of necessary food for the expanding blossoms. A free use of the syringe over head will be highly beneficial when not in bloom.

At the respective periods of growth and flowering the plants will require carefully watering. During flowering, if not regularly supplied, the bloom buds will be very liable to fall off, instead of expanding into flower. At other times, a regular moderate supply is essential. The effect of constant watering may be presumed to diminish, or destroy the fertility of the small portion of earth allotted to each plant; therefore, at each repotting, carefully take away as much of the old soil as can be done without injuring the roots.

The Camellia may be considered strictly a hardy greenhouse plant, similar to the Myrtle, only requiring protection in severe weather; and if it is kept just above the freezing point, it will succeed much better than if kept in a high temperature. At the period of making their growth, an additional degree of heat will be found advantageous.

The insects that infest the Camellia are, the scaly insect, the thripps, and the ordinary aphides or geen fly. For the two last, fumigate with tobacco moderately for two nights in succession, at intervals, until they disappear. For the scale, add two ounces of whale oil soap to a gallon of warm water; beat well together and apply with a sponge.

The common earth-worm generally infests the Camellia, and does serious damage to the drainage. Should they appear in the soil, use a little clear lime or soot water, which will soon drive them from the ball.

A few of the best varieties for a small collection, out of the great number now in cultivation, are the following, from which the required number may be selected, beginning with the first named.

1. *Camellia alba pleno*—(Old double white)—Fine form; petals regularly imbricated; color pure white; large flower—one of the best.

2. *C. Candidissima*—Pure white; large; form perfect; very late bloomer.

3. *C. Leeana superba*—Vivid red; center rosy salmon; perfect form; imbricated—one of the finest grown.

4. *C. Duchess d'Orleans*—A pure waxy white, blotched and striped with bright rosy pink, clear and well defined—a beautiful flower.

5. *C. Matholtiana*—Very deep carmine red; fine form; the best red.

6. *C. fimbriata*—Fine clear white; perfect form; the edges of the petals fimbriated; a lovely flower, and universally admired.

7. *C. Henri Favre*—Light rose; beautiful imbricated form—a superior flower.

8. *C. Imbricata*—Color carmine or deep rose, often striped with white; beautifully imbricated—the best of its class.

9. *C. Wilderii*—Color very clear bright rose; superb form; free bloomer—one of the best.

10. *C. Mrs. Abby Wilder*—A fine large imbricated flower; white, faintly blotched and striped with rose; superb; robust habit.

11. *C. Teutonia*—A fine white, flaked and spotted with violet; very clear—a splendid flower.

12. *C. Princess Bachiochii*—A rich dark crimson, spotted and striped with white—a splendid flower.

13. *C. Lowii*—Deep carmine, sometimes striped with white; finely imbricated—a noble flower.

14. *C. Queen Victoria*—A fine variety; rich rosy carmine, with a white stripe down the petals—superb.

15. *C. Sacoii nova*—Clear light rose; superb form; beautifully veined—extra flower.

16. *C. Jeffersonii*—Fine bright red, with clear white stripe down the center of each petal—novel and superb.

17. *C. Sovereign*—Waxy white; flaked and spotted; light rose—beautiful flower.

18. *C. Chandlerii elegans*—Bright red; blotched and striped pure white; large flower; very showy.

19. *C. Emperor*—A noble flower; cherry red; monstrous flower—the largest known in cultivation.

20. *C. Lady Hume*—A fine variety; white, beautifully tinged with flesh.

FIGURES ABOUT NEW-YORK STATE.

In reading over the Governor's Message, we were forcibly impressed with the magnitude of some of the figures incidentally presented; such, for instance, as the following:

Population.—The population of the State on the 1st of June, 1855, was 3,470,063, an increase of one-third in 10 years, and more than all in the whole country at the time of the Declaration of Independence. There are 516,745 native voters, and 135,976 naturalized voters; 632,746 foreign-born persons in all, or less than one-fifth; 35,923 colored persons, and 3,945 Indians.

Emigrants.—Only 136,233 emigrants landed in New-York in 1855; in 1854 there were 319,223.

Schools.—More than $3,000,000 were paid in 1855 for the education of 998,273 children between the ages of 4 and 16. There were besides 225,854 children not attending school. Many of these are those between 4 and 6 years of age. There are 11,028 schoolhouses, of which 9,356 are frame buildings, 715 of brick, 576 of stone, and 381 of logs!

State Prisons—There are three of these which held, incarcerated, December 1st, 1,905 prisoners, viz.: at Sing Sing, 937; at Auburn, 687; at Clinton, 281. To support these for one year cost $223,343. Of this the prisoners earned $196,230.

Canals.—Owing to the abundant crops, the canal tolls for 1855 amounted to nearly three millions of dollars ($2,804,800.

Railroads.—There are in this State 3,216 miles of railroad track, requiring in their construction a continuous bar of iron 6,432 miles in length, and probably weighing over three hundred million pounds. These railroads cost more than $120,000,000. During 1855 the cars carried nearly thirty-four million (33,839,164) passengers, a greater number than the whole population of the United States. The earnings of these roads were

$20,843,385; the expenses $11,310,720.

Salt.—At Syracuse six million bushels of salt were made in 1855, and it is expected that seven millions will be manufactured in 1856.

GARDENING BY THE INEXPERIENCED.

That gardening by men who understand the business will pay very well, is a fact well ascertained. But that it will pay a man who does not know one garden tool from another, is a matter of much uncertainty. Many think they have actually demonstrated that it will not pay. They have hired a piece of ground, bought manure, and set a man at work, and the grand result was, that their potatoes cost them two dollars a bushel, and their peas a dollar a peck, when they could purchase the same articles in market at one fourth the price. They know that it will not pay.

There are failures in gardening, no doubt, and the causes are so obvious that it would seem the bare detail of them would be enough to guard all future experiments against their repetition. They are almost always traceable to ignorance of the conditions of success. Soil, manure, and a common laborer are by no means a recipe for a family supply of good vegetables. The conductor of the experiment must either have knowledge enough of husbandry to supervise the operations himself, or procure a workman acquainted with gardening. In either of these cases, the cultivation of the soil will pay liberally.

It is not necessary that a man should have been bred a farmer or a gardener, in order to make his garden profitable. And one of ordinary intelligence, if he have the leisure to inform himself, by reading the journals and hand books which treat of rural affairs, will soon make the garden as profitable as it is pleasant. His failures will be his best teachers, if he will pursue his investigations till he find out their causes. There must be knowledge in this business as in all others, if we would succeed.

Some fail by cultivating the land with little or no manure. They grudge the expense of fifty dollars laid out in this article, for an acre of land. They get but half crops, and this hardly pays for the labor. A very few put on too much manure, and the seed is burnt up, and by the time they discover their error, the most favorable time for planting has past. Of course they do not have full crops. More put on none too much manure, but it is not mixed sufficiently with the soil, or too much of it is put in the hill. An ounce of guano in the wrong place will destroy at least one hill of corn, and injure any other garden seed. Others again fail in tillage. When all other things are right, they are a little too late with the hoeing, the weeds get the start, and keep it through the season. Others have a pretty good garden, but think it costs about as much as it comes to. They keep no account of it, and can not tell how much they expend upon it, or how much the product is worth at market. We suspect a good many of this class would have their doubts removed if they would make an estimate of the value of all the luxuries that come from their gardens.

Our experience is, that gentlemen engaged in other pursuits may relieve the monotony of their vocation by gardening, not only with great advantage to their minds and health, but to their purse. Every one who lives out of the city, or who can command a quarter of an acre of soil, should grow his own vegetables, or supervise the labor necessary to grow them. He will be surprised to find how large a variety, and how great a quantity, of vegetables and fruits can be produced from so small a garden. He will be still more surprised to see the difference between the products of his own garden, coming in the best condition to his table, and the stale products of the market. He would never be content to go back again to purchased vegetables. We find our own garden pays better every succeeding year, and as the larger fruits are not yet in full bearing, it can hardly fail to enlarge its productiveness for years to come.

This is, we believe, the general experience of our neighbors. One of them, on a spot hardly so big as his house and yard, has raised a full supply of green corn, a fine lot of potatoes, besides squashes, cucumbers, beans, and other matters. The raspberries and strawberries are coming, besides a few larger fruit trees. Another, on about an acre of land, which he has cultivated himself, has raised and sold vegetables to the amount of one hundred and ten dollars, besides all that has been consumed in his family. He had no hot beds for forcing, and the vegetables were sold at the common market price. Another, who has kept a gardener and cultivated a little more land, has made sales to the amount of over seven hundred dollars the past season.

But it seems degrading to bring so beautiful a calling to the test of dollars and cents. We would have a garden, and live in it two hours a day, if we had to pay for it. This we trust will be the experience of our inexperienced friends.

POTATO BREAD, GOOD AND PROFITABLE.

A GOOD WAY TO MAKE IT.

We mean just what we have written above. Potatoes can easily be added to flour so as to make the bread cheaper than that from flour alone. Potatoes cost only 50 to 60 cents a bushel, in most places, where flour costs ten to twelve dollars per barrel. A bushel of potatoes contain 15 to 20 pounds of solid material, just as good for food as the same weight of dry flour. Allowing for the water in each, the dry potato costs, say three to four cents per pound, the dry flour six to seven cents, or nearly twice as much. To make potato bread:

Pare and boil a quantity of good potatoes, and then mash them well, and add water enough to make a thick fluid. Strain this mixture through a sieve; add yeast, and stir in, previously warmed, flour enough to make dough of the usual consistency. Knead, raise, and bake, just as for pure flour bread.

Made in this way, the bread will be light, "short" or tender, easy to digest, and very pleasant to the taste. Try it. The method is simple. The quantity of potatoes may be very indefinite. Perhaps the best proportion is about one quart of potatoes for four or five pounds of flour.

A SIGHT WORTH SEEING.

Not all the shows and exhibitions of New-York City put together can begin to equal in beauty and attractiveness one we almost daily witness, which can be seen in a short ride, requiring little expense, and less time to reach it from Fulton Ferry than it takes to go to the Crystal Palace. We refer to the magnificent collection of Camellias now in bloom on the grounds of Messrs. Parsons, at Flushing. Just think of it—right in midwinter you can see, in a single glass-covered house devoted especially to this purpose, some *five thousand* Camellias, many of which are in bloom. Among these are plants in every stage of growth; the full expanded flowers and the buds just opening their beautiful petals to the sun contrast their snowy whiteness or scarlet brilliancy with the rich glossy green of the supporting leaf. Every body who has seen one Camellia flower, will long will long to visit the above collection, which is always open, without charge, to any who may wish to call. Mr. Cadness, who has charge of this and the other greenhouses, is generally present to wait upon any visitors.

To reach Flushing is an easy matter. From the Fulton pier, adjoining Fulton Ferry, in New-York, the steamer Island City leaves for Flushing daily at 6½, 8, and 10, A. M., and at 2, 4, and 6 oclock, P. M., *via* the Flushing Railroad. The whole passage-time, by boat and cars, is from 50 to 55 or 60 minutes. The cars leave Flushing for New-York at the same hours, viz: at 6½, 8, 10, 1, 4, and 6.* We pass over this route morning and evening, and generally find it much more comfortable, and occupying less time, than the usual conveyances to our home when we lived in the upper part of this city. The fare, including boat and cars, is only 25 cents. We advise our friends living in the city, and those who may chance there during this month or the fore part of March, to spend two or three hours to see the Camellias. Our office is only a couple of blocks from the starting point, where any one desiring further directions will be assisted with pleasure.

Just now, and for three weeks past, the regular trips of the Island City have been interrupted by ice in the East River. This will be obviated as soon as a warm spell occurs. Within the memory of the "oldest inhabitant," there has not been so much obstruction from running ice.

CATCHING SNAILS AND GRUBS.—The Gardener's Chronicle, (Eng.,) recommends scattering a little oatmeal, about sundown, in the places where these plant pests, so troublesome in England, most abound. About an hour later, a good army of them will be congregated together feasting upon the meal, when they may be gathered up and destroyed. The best time to catch them is just after a rain. A correspondent who tried this method states, that in a strawberry bed, he captured five thousand in half an hour. Wonder how long it took him to count them?

ERRATA.—In making up and printing the next eight pages before the rest of the paper, the compositor committed a blunder in the paging.

The pages—97, 98, 99, 100, 101, 102, 103, 104,
should be—105, 106, 107, 108, 109, 110, 111, 112.

The * figures and the last eight are in regular order as they will stand in the bound volumes, and the sheets wrongly paged are stitched in their regular place, so that no difficulty will be experienced. This is the first serious error our printer has committed in a long engagement, during which he has set in their proper places millions of figures and letters; and considering that he, like "all the rest of us," has been "snowed under" half the time for a month past, we ask our readers to do as we (editorially) will this time, "touch him lightly."

TO CULTIVATORS OF SMALL PLOTS OF GROUND.

We find among our readers an increasing number of those who are engaged in various business pursuits in this and in other cities, but who have their suburban homes where they own or rent small plots, varying in size from an eighth of an acre, to three or four or more. Such persons have little time, perhaps only a morning or evening hour, to devote to their homesteads, and having a limited experience in garden or flower culture, they are often sorely puzzled to know how they can best use the little time, and the small space of ground at their disposal. The instructions found in books, or derived from professional gardeners, are often two voluminous or too indefinite to supply them with just the kind of information they need. To supply this want, in a measure, we have commenced a series of practical articles, in which we propose to direct to the selection of some of the *best* varieties of flowers, shade trees, garden vegetables, &c., where only few are required, and to add plain and simple details for their cultivation.

In this number will be found articles giving directions for making a small collection of the roses, another about camellias, and others upon Work for the Month, Early Tomatoes, Radishes in March, Garden Soils, Gardening by the inexperienced, Grape Vines and Cuttings, Raising Plums, Pears, Bees, &c., &c.

In the December number of this volume (xv), at page 66, will be found ample directions for selecting some of the best shade trees, for private as well as public grounds. Those who find it convenient to refer to our thirteenth volume, at page 166, will find a description of a "Mechanic's half acre," showing how much, and how great a variety has been, and may be raised by one who has only a village lot, and who works ten hours a day in his shop. The article is illustrated by a cut, showing the location and names of the trees, shrubs, vines, fruit trees, vegetable plots, &c. Those who can not conveniently obtain that volume, are invited to call in at any time and spend an hour or two in looking over our office copies.

We may be allowed to say, that in preparing these articles we are assisted by a number of gentlemen who are considered the best authority upon the various topics discussed, and we feel quite sure that full reliance may be placed upon the directions given. We shall devote considerable space to this branch of culture in each succeeding number, for such topics are not only useful and interesting to the class of persons indicated above, but also to all classes of soil cultivators, especially to those who are waking up to the subject of improving and adorning their gardens and other grounds connected with their rural homes.

LOOK WELL TO YOUR CELLARS.

In these cold nights, when the mercury goes below zero, the frost will penetrate the warmest cellars, unless they have a temporary embankment upon the outside. The bank is sometimes washed by the rain during a thaw, and needs replacing. Snow is a good substitute for dirt where it can be had, and a pile of snow about the cellar windows will save your roots from the frost. If the frost has unfortunately reached the potatoes, cover them with hay, or with any other convenient material, that it may be drawn out slowly. Fruits and vegeteables are not so much injured by freezing, as by sudden thawing. Even apples may be slightly frozen without injury, if they are covered with a thick cloth, and kept in a room of low temperature. Potatoes will be in good demand in the spring. Let them not be injured in their storage. A little extra attention to the cellar at this season will be money in your pocket.

EARLY TOMATOES.

This is one of the most difficult of vegetables to force, and should be started very early in order to anticipate the season. Those who have greenhouses, and hot beds need no other facilities. But those who have only a stand of parlor plants, and keep up a constant fire for them, can start a few tomatoes with very little trouble. Take a half dozen 4 or 5 inch pots, and plant two or three seeds in each, in rich garden loam. The pots can stand with the other house plants, and receive the same watering and attention. When the plants are well started, pull up all but the most vigorous one in each pot. Stir the earth frequently around them, and they will grow rapidly and fill the whole pot with a mass of fine roots, by the last of May, when they will probably be in blossom. If they have rich soil and a good exposure on the south side of a wall or fence, they will suffer little check in the transplanting, and you will get tomatoes much earlier than from seed planted in the open ground in April.

OUR *terms* are advance payment. We no more think of sending this journal for a year and then asking pay for it, than would a book publisher of sending his books unordered all over the country, and then send out bills at the end of the year, asking pay for them. Let it be understood, that wherever this paper is sent, *it is considered paid for.*

We sometimes direct specimen copies to persons not subscribers. These are designed as a compliment, or to invite examination, and subscription if the paper is *liked*. Such copies need not be returned. When done with them, please pass them along to a neighbor.

ANSWERS TO INQUIRIES.

PIPES FOR WATER.—E. V. Allen, Chatauque Co., N. Y.—Your inquiries as to iron and lead pipes are pretty fully answered on page 88 of the January number. Where water for drinking and cooking is moved slowly or only occasionally through lead pipes, they are generally objectionable. If there is a constant and somewhat rapid flow, there is little or no danger. In using lead pipes, long or short, all the water standing in them for any length of time should be entirely drawn off before any is taken for drinking or preparing food for man or beast. We are not aware that water-lime is used alone in the construction of pipes for conveying water. It is substituted for common lime in making mortar for laying brick and stone aqueducts. The price of water lime—usually called "hydraulic cement"—is very variable, depending upon its quality, the nearness of the locality where it is found, the abundance of mills for grinding it, &c. The present New-York price is $1 to $1 50 per bbl.

BEET SUGAR.—P. W., Castleton, N. Y.—The manufacture of sugar from beets has been several times undertaken in this country, but has been immediately relinquished in every instance, we believe. Nothing but a high bounty from government, or the exclusion of foreign sugars by a high protective tariff, will at present warrant any one in going into its manufacture. Even then, cane sugar could be raised enough cheaper to successfully compete with it. We have no American treatise upon this subject, though some of the older volumes of the Patent Office Report, issued, say between 1840 and 1846, contain considerable information. There are some French treatises quite full and explicit. An editorial upon the culture of sugar beets for feeding, may be found on page 113 of our last volume (xiv).

THE PAIRING OF POULTRY.

Whether or not the gander seeks his mate on St. Valentine's day, as all orthodox poultry women believe, it is a due time to make arrangements for the accommodation of your several varieties of poultry. The promiscuous herding of all sorts may be permitted in the fall and early winter, when you are looking mainly for flesh and eggs. But now that the breeding season approaches, it is important that they should have yards by themselves. The geese need a quiet pasture or meadow near the house. The several breeds of gallinaceous fowls require seperate yards early in the season, if you mean to keep the breeds in their greatest purity. If you want strong healthy chicks to rear for stock, confine your cock to four or five hens. Fifty Dorkings, the best of their kind, are better than a hundred poor late chickens. The more May chickens you can get the better.

A TRIP TO THE WEST—No. 3.

(CONCLUDED.)

THE STATE OF ILLINOIS—ITS AGRICULTURE.

Illinois is one of the largest of the States which lie east of the Mississippi. From the north to the extreme south-western point it courses over 5½ degrees of latitude, and is, on an average, nearly two hundred miles wide. It contains over twelve million acres, one half of which is in cultivated farms. It is universally prolific in the growth of Indian corn, the coarser cereal grains, and a large portion of the land yields wheat. The grasses grow everywhere, and the fruits of the climate produce well in most localities. Without mountains or marshes to any considerable extent, the whole surface, indeed, is capable of becoming productive in a high degree, and all of exceeding natural fertility. It has extensive beds of lead and iron; immeasurable mines of coal; vast forests of valuable timber; inexhaustible quarries of stone; a great extent of water-power; large commercial towns; many navigable streams; a canal a hundred miles in length; and a surface over which railways may be laid with a facility and cheapness rarely equaled. Thousands of miles of these are already completed, running in all directions, and thousands of miles more in contemplation, which the demands of an increasing and active population will construct and use. With a mild and healthful climate, free labor, and a ready market, human calculation can hardly estimate the productive wealth of this mighty State, already counting 1,300,000 people—the fourth in the Union! To say that its agriculture is in a *high* condition of excellence, would be to contradict that of all countries so new; but when we say that there is already *much really good* agriculture in the State, and that it is, altogether, improving, is true in an eminent degree. The extensive display of agricultural implements at Chicago, which were constructed in almost every quarter of the State, and the show of superior grains, and domestic animals, settle the question—if question could be raised—that the farmers of Illinois are becoming awake to their interests in the improvement of their lands, the comparative diminution of manual labor in the cultivation of their crops, the enjoyment of domestic luxuries, and the stocking of their farms with better animals. The construction of railways have doubled the value of their improved farms, and trebled that of the unoccupied lands; and although the railways themselves may, many of them, prove *unremunerative*, as independent property, to the stockholders, as unquestionably they must, they *will* continue to be made, regardless of such results, so long as the community shall require them for their convenience. Millions of dollars worth of cattle, hogs, and grain, have this season been purchased of the farmers at their own doors, deliverable and paid for at the nearest railway station or boating town, which is seldom many miles distant, and at prices which five years ago they could scarcely dream of. Such is Illinois.

CAIRO—THE OHIO AND MISSISSIPPI RIVERS.

Had the site of Cairo been an elevated bottom, out of the reach of floods, instead of a low inundated flat, it would, in all probability, concurrent with the settlements of St. Louis, Cincinnati, or Louisville, have superseded them all as the grand distributing point of the commerce of the Lower Mississippi, to the various points on the navigable waters above; but lying on a low bottom, it was subject to frequent overflows, and although a settlement for commercial objects had been many times attempted, it was as often abandoned, until the great Central Railway was projected to reach from the extreme northern sections of the State to its southwest extremity at its most available commercial point. This decided the *fact* of Cairo as a future commercial city—and it *will be built*. The trade and travel of southern, central and northern Illinois demands it; the Central Railway terminates at it; there is sufficient of capital and enterprise combined to overcome its geographical deficiencies, and the destiny of the future city is settled—not in extent, but as a practicable, available place. A glance at the map will show its capacity to accommodate extensive and indispensable routes of travel, while its convenience as an outlet for the surplus crops of Central Illinois, and a point at which to receive the products of the Lower Mississippi, must be obvious to any accurate observer. Now for the place—*as it is*.

The latitude of Cairo is 37° North, in about the same parallel with Norfolk in Virginia, and 5½ degrees south of the north line of Illinois. Aside from the temporary stagnant waters which the overflow of the rivers may leave around it, the place might be tolerably healthy. Liable to such occurrences, it will for many years be subject to occasional miasmatic diseases, which, however, may be greatly relieved by a retreat into the high, healthy back grounds in its immediate neighborhood. The Ohio, a few miles above, deviating from its main southwardly course, makes a detour to the south-east, and comes sweeping down into the embraces of the Mississippi, in a curve of exceeding beauty and grandeur, washing the front of the town along a bank some fifteen feet in hight. It is here upwards of half a mile wide, with a gentle current of perhaps two and a half miles an hour, at a medium stage of water, as when we saw it. The opposite Kentucky shore is of about equal elevation, heavily wooded, as is that of Illinois just above the town, with no single sign of cultivation in view. Along the river bank a wide, strong levee above the reach of flood has been thrown up, extending from its mouth a mile or more up the stream, and then making into the land across the bottom connecting with the table-land two or three miles back. On this levee, perhaps forty feet wide at the top, runs the railway, with temporary freight and passenger offices in rear, while in front, heavily chained to the bank, floats a large warehouse in the stream at its foot. Along by the side of this warehouse lie steamboats, as they touch to discharge or take on passengers or freight which the railway brings to or takes away from the place. The surface back of this levee is sunk perhaps fifteen feet below it—a low, black, repulsive soil for building upon, laid out in blocks and streets, on which are scattered a few wood and brick houses occupied as dwellings and stores. One, and only one, of the dwelling-houses looked *really* comfortable, while the foreground was occupied by a great, uncouth wooden "hotel," as dirty and comfortless a place, to well-conditioned people, as need be. If the proprietors of Cairo have the slightest wish to give the public a favorable impression of their future city, let them at once provide a decent, well-kept resting-place for the traveler and visitor, and we assure them it will add immeasurably to their good opinion of the town. Important improvements are projected and commenced. Among these is an immense warehouse for the storage of grain, just behind the levee, 450 feet in length, and several stories high. A large flouring-mill of ten or twelve runs of stone is about to be built, as we were informed, together with other improvements which will give life and activity to its commerce, and become the nuclei of a successful business. A single steamboat from Louisville touched, the day we spent there, and discharged some freight and took on a few railway passengers for various places below. Several other steamboats passed each way, a straggling "flat" now and then, and a few arks floated down the river. Large sums of money have been expended here in securing the levee, and erecting buildings, and many failures of the works occurred before the levee, which is the important feature of a successful result, was completed. That has now a firm and permanent appearance, and paved, as now commenced, will answer all purposes. We asked the price of lots. "Two or three thousand dollars," we were told must be paid for a front of fifty feet on the levee, by a hundred feet in depth. They may have cost that to the owners, no doubt, for the levee itself must have been very expensive, although the rear lots are equally benefitted by its construction. They may be worth it, possibly, to those who go there to establish a permanent business, and none others, we fancy, will contemplate a residence at such a spot. But *necessity will build Cairo*, and the greed of gain will furnish it a population as fast as the demands of business will require them. On the west, or rather southern side of the town, the Mississippi comes whirling along its rapid, muddy, curdling flood, cutting into the banks of the thrifty young cottonwoods which stand bristling upon the unctuous clayey bottom. The extreme point of land at the confluence of the two rivers runs off into a low, oozy beach; the current of the Mississippi was perhaps five miles an hour at the time, and nearly a mile in breadth. Above, half a mile, is a low spit of sand and gravel making into the stream, while opposite is a bushy island of some acres in extent; and on the Missouri side stretches off a considerable farm, with a tolerable house upon it—the only signs of life in that quarter. Below, the joining riv-

ers pursued their course, and turning a reach in the distance, disappeared in the vast low wilderness.

THE MISSISSIPPI CATFISH.

While looking out from the levee in the afternoon, a couple of fishermen brought, in a skiff from the opposite side of the Ohio, several enormous catfish, just freshly caught with their hooks. To one unaccustomed to this variety, they present a most uncouth and forbidding appearance. They are a gigantic variety of the eastern bull-head, or "pout," about one-fourth of the whole size being appropriated to the head—the widest part of the whole fish—with a gradual taper to the tail. The smallest of these fish weighed upwards of forty pounds, and the largest eighty-two. The fishermen called them the "Mississippi cat," being much larger and of slightly different color from the "Ohio cat." They have been caught of 247 pounds' weight, we were told, by an old settler and fisherman; but such specimens are rare. They are not a fish of high flavor, but rather coarse, and oily. The head is the best part. We have eaten them baked that were really delicious.

LEAVING CAIRO.

It was now the 18th day of October. The previous morning, at Dubuque, the forests were glowing in the sere and yellow leaf of falling autumn. The fields had all been cut by the frost some weeks before, and so they were all the way down until we struck the timber region of lower Illinois. But at Cairo the forest leaves were green, almost as in midsummer. The frost had scarcely touched a garden vegetable, and the weather was warm, like summer.

We had arrived at Cairo about 8 o'clock in the morning, having rode through a bright moonlight night, intending to spend the coming night in the town, and leave the next morning. But that "hotel"! We concluded rather to bear the discomfort of a second night in the cars, and so, at 5 o'clock in the afternoon, left Cairo on our return to the north.

THE CENTRAL RAILWAY—ITS MANAGEMENT.

This Railway—in its construction and completeness; its wonderful straightness; its immense length of uniformly level grade; the ample width of its roadway; its turnouts; its neat, commodious, and tasteful station-houses; its comfortable and timely eating establishments; the liberal and frequent accommodations for the storage and security of its freight; its spacious, well built cars; its civil and attentive conductors; the care of its engineers, and the uniform rate of speed in travel—for so new a road, is certainly a model affair. Twenty-two hours of continuous travel is occupied between Dunleith and Cairo, a distance of 454 miles, averaging a trifle over twenty miles an hour. About the same rate of travel per hour is allowed from Cairo to Chicago. Few accidents occur on this road; and why should they occur at all? It has no rival parallel roads to compete with. Its conductors are *never in a hurry*. Their trains are not numerous—two only of passengers and one of freight each way daily—and they can *afford* to be careful. Success to their labors!

BACK TO CHICAGO.

We passed a comfortable night on the cars, and sunrise found us at Decatur, where we took breakfast. Continuing north, at Mendota, between La Salle and Dixon, where the Chicago and Burlington road crosses the Illinois Central, we left the latter, and taking the cars of the other, turned to the east. On the line of the Chicago and Burlington road lie several thriving towns and small villages surrounded by a rich and rapidly improving country. The labor of utility and the hand of taste have been skilfully combined, and as a matter of course with successful results. Oswego, Aurora, and Batavia, would be beautiful villages, with their bright and clear Fox River running through them, if dropped down in the midst of New-England or Central New-York. "It *does* take the Yankees and York Staters to build a handsome town!" as they say "out west." At Junction, where several roads come together, thirty-two miles west of Chicago, we struck the combined track, and arrived in the city at 8 o'clock in the evening.

We return our thanks to the Illinois Central Railroad Company for their liberality in thus giving us a gratuitous opportunity to see their noble State; and in part payment therefor, hereby give them this "first-rate notice"—suggesting, however, that when they again extend to us a like invitation, after going six hundred miles to reach them, they give us *full* "passes," not only to *leave* Chicago, but to *get back* again—as they did not—leaving us to pay our fare over the Chicago and Burlington, to the tune of six dollars and odd, when the Central had the full option to run us over it—if they pleased.

PEPPERMINT RAISING.—I planted four acres of Peppermint in the fall of 1854, between the 25th and 30th of October, planting it two feet apart. Marked the ground by making two marks at a time, also covered two rows at once by means of a sort of plow drawn by a horse. The ground was summer fallowed, and in good order. Soil a mixture of sand, gravel and clay. Below I give a list of all work, and cost, including board:

EXPENSES.

16 days digging and setting roots		$16 00
4 "	team work	4 00
6½ "	man and horse cultivating	8 75
26 "	hoeing	26 00
16 "	mowing and raking	26 00
2 "	drawing, (2 hands and team,)	6 00
Cost of distilling, 37½ cts. per lb.		50 00
Total		$130 75

RECEIPTS.

133½ lbs. of mint, $3 75 per lb.	$500 62
Profit	$360 87

Last spring I undertook to try an experiment with fall and spring setting, but the weather was so dry in the spring that it did not do well, so I will say no more about the experiment. I am highly in favor of fall setting on land that will not heave the roots out.—COR. Rural New-Yorker.

A mean freedom is more naturally desired than a golden servitude. Fetters of gold are fetters, after all.

SOME TRIALS OF BONE-DUST AND OTHER FERTILIZERS.

Nothing is more important in the present condition of agriculture than a series of well conducted experiments with the various fertilizers, not only upon the different kinds of soils but also with the various kinds of cultivated crops. Many experiments have already been made, but nearly all of them have been defective in some particular. One of the most frequent defects is the absence of the elements of comparison; thus, for illustration, a farmer tries bone-dust upon a plot of wheat, but instead of leaving a part untreated, he scatters the fertilizer over the whole field and it is not possible to judge what effect the bone-dust has produced in that particular season. In the following experiments communicated to the Germantown Telegraph, the defect alluded to was avoided, though we should value the results still higher, had the bone-dust in each instance been applied *alone*, and so also the gypsum. We should further like to know exactly the kind and quality of soil, and the time and manner of applying the manures. The experiments are, however, quite superior to the generality of these reported to the press, and we give them in the language of the writer:

In order to test the value of bone manure as a stimulant, I last season made the following experiment. On a piece of light soil that had been pastured for a period of upwards of thirty-five years, and which had been broken up deeply, and with an even and perfectly inverted furrow slice, the previous autumn, I sowed twenty-five bushels of bone-dust and wood ashes, half and half, after harrowing, and sowed on oats, two and three-fourths bushels to the acre, the surface being limited by accurate measurement. On an adjoining piece of equal extent, sowed also in oats, the same quantity as in the first case, twelve bushels of ashes alone were used, and on a third piece—one acre in extent—the oats were sowed without any ashes or other stimulant whatever being applied. The same quantity of seed precisely, was allowed on each acre, and the sowing was done on the same day, as was the preparation of the soil, and harrowing in of the seed.

On harvesting and threshing the crop, I ascertained the following results: The acre not manured, produced twenty-one and a half bushels; straw tall and very heavy. The acre manured with twelve bushels of wood-ashes, yielded twenty-seven bushels and five quarts, with a thinner and more delicate straw; while the product of the boned and ashed amounted to forty-seven and three-fourths bushels, the straw being fine and short, the principal development being in the *heads*.

On another piece I planted beans. Four rows of one hundred hills each were bone dusted, the next four were manured with poudrette, the next four with wood ashes and gypsum, four rows on the side of the piece, but adjoining the other twelve, were planted without any manure whatever being

applied. The after culture was in every respect precisely the same. On harvesting the crop it was ascertained that the boned rows had produced double the quantity yielded by the four undressed rows. The rows dressed with poudrette yielded somewhat less than the four treated with dust, but owing to a slight oversight, the exact quantity was not ascertained.

From these and similar data, I am persuaded not only of the value of bone-dust as a manure, but of its economy as a stimulant to be applied on field crops. Several experiments on turnips, all of which were conducted with the most scrupulous accuracy, corroborate the correctness of this opinion.

I think that a little more liberality on the part of our agriculturists would be far more creditable, especially as the present depressed condition of the art demands the vigorous coöperation of all its friends in order to insure its advancement, and without this cooperation it can never progress, or be productive of the results of which it *ought to be*, and of which it unquestionably *is* capable.

On a piece of light land, on the farm of one of my neighbors, one bushel of bone-dust was sowed on grass land, rather light and thin. The surface was somewhat undulating, but not sufficiently so to be considered broken; the extent somewhat less than one-fourth of an acre. On an adjoining piece, in every respect similar in texture and constitution, one bushel of poudrette was applied, and on a third piece three bushels of ashes—all three of the articles being broadcasted, the time being the 21st of May. The land had been five years in grass without any dressing, and was rather poor. The first section, or that which had been dusted, produced seven hundred and eight pounds; the second, or that on which poudrette was used, yielded seven hundred and thirty-six pounds, and the third, manured with the three bushels of ashes five hundred, eighteen and one-half pounds. The grass on the three pieces was cut on the same day, all cured alike, and weighed on the same scales. The increase of yield, in consequence of the application of these substances, was considerably over thirty-five per cent.

Such facts are of importance and should be so regarded by all. A Farmer.

Grain for France.—The Rochester Union states that the agents of the French Emperor have been largely engaged this fall in purchasing wheat in the west, on his account. They have purchased 900,000 bushels, of which 650,000 came to Buffalo and 250,000 bushels to Oswego. All but 40,000 went down the Erie Canal. The same agents are still buying in Illinois and other western States, to go down the Mississippi and out by New-Orleans.

Some wag sent an editor the first chapter of Matthew, as an original communication for his paper. The editor thought it was all right, and inserted it under the head of "communications."

It is less pain to learn in youth than to be ignorant in age.

OUR MUTTON MARKETS.

Why is it that we see so little *really good* mutton in our public markets? It is about the *best* fresh meat that we can obtain, *when good*. The common mutton is—and no secret either—bad; in most cases, scarcely eatable; and it is impossible to make *good* mutton out of *such* sheep as our farmers breed for such purposes. In the first place, the proper anatomy or *frame* of the animal is wanting. Neither our old-fashioned "common" sheep—of which millions are yet propagated in the country, particularly in the western States—nor the Merino, are properly *built* for the purposes of good mutton. They are thin, gaunt, and scraggy, and their meat, as a consequence, lean, tough, and stringy. Even when "well fatted"—if such a thing can be—they are inferior, and, on good tables, little or nothing is used but the hind quarters—and poor at that. The improved English breeds, Cotswold or Southdowns, are the true mutton sheep, and why, when they are so easily obtained at very moderate prices, as they can be in this country, it is passing strange, that our farmers are so neglectful of them.

According to our late market reports, "common" sheep and lambs are worth $3 75 each, while "extra" are worth $10 to $12. By "common," are meant the old-fashioned American sheep, and Merinoes and their crosses upon the American, while "extra" are the Long-wooled and Southdown varieties. The "common" are three to four years old, and the "extras" two to three years. It costs just as much to breed and raise one as the other, but the fattening, mainly done on grass, is all on the side of the improved breeds. The common breed, *i. e.* the old-fashioned, and the Merino and their crosses, will, with ever-so-much grass and grain, take on flesh and fat only in certain parts of the body and on the kidneys, while the improved ones will fat all over, like a pig. Consequently, while the common thing has a fore-quarter scarcely fit to eat, the other has a full carcass, rich, fleshy and juicy, from the "scrag" to the "hocks"—all good and edible, for the very best tables.

Why do not our western farmers go into good mutton, instead of running, as they do, into beef and pork, exclusively? It seems to us they will find their account in it. No animal treats land so lightly as a sheep. None grazes on coarser—if dry—herbage. They will summer well in a bush pasture where a bullock would starve. They will winter out, on bare ground, where a "neat" animal can not get enough for a cud. They are every way an economical creature. Their fleece will usually pay for the annual keeping. Do, we beseech you, both our eastern and western friends, go into the breeding of good sheep, and supply our markets with good mutton.

A wag, on seeing a pet poodle which had been shorn of its fleecy coat, remarked that he deemed the act which had divested the animal of its covering *shear* cruelty.

MISSISSIPPI CORN AHEAD.—"SOME PUMPKINS."

To the Editor of the American Agriculturist:

I do not design to brag over an Everett or a Rives, over Massachusetts or Virginia, but I can not help it. Mississippi has some showing where corn is the question. On page 53 you allude to "some corn." I have an ear now on my desk, raised here, eleven inches long, nine inches in circumference, twenty-two rows, fifty-two grains in each row—1,144 grains *now* on the cob, and one inch of the small end with grains accidentally off by handling and the result of the weevil. I count, by distinct depressions where grains were, 132 grains off, which, added to the above, gives 1,276 grains originally, at least. This ear I picked out of a wagon when hauling in corn, without selecting. I have another ear, accidentally picked up as the above, with twenty-six rows and over 1,000 grains. I know not that I could do better, but if beaten will try again.

I had, of our common pumpkins, 77½ and 78½ lbs. each; and some 80 loads of box-body's containing 162 and 177 cubic feet—holding by my count 54 and 59 bushels of corn in the shuck [husk].

The corn is as pure "gourd seed" as I can get—preferred because less depredated upon by weevil. Is the quantity and coarseness of husk the preventative—being too much for weevil to deposit eggs through?

I think I have seen more grains on other ears than mine contains, and this one is preserved not for the quantity, nor the size of the ear, but for the regularity of grains.

M. W. Philips.

Edwards, Miss.

We submit the above to Mr. F. R. Rives, of Virginia, and Hon. Edward Everett, of Massachusetts. They will both have to try their hands again at raising corn, or own beat.

However, Mr. Rives's ear of corn was two inches longer than that of Mr. Philips, tho' one inch less in circumference—so that the superficial area of each is about the same. We propose that both gentlemen shell the ears, and send us ths exact avordupois *weight* of corn.

Will Uncle Sam please call in and give an account of himself? We want to know why the above letter was 21 days in coming to New-York.

Poets say, "follow nature." Painters say, "follow nature." Actors say "follow nature." It strikes us that this following nature is about being played out. Mr. C., the farmer, followed nature one year, and what did he get—a crop of mullen instead of "yaller corn." Nature is rather a wayward young lady. She runs as strongly to weeds as the Gulf Stream or a young widow contemplating marriage. Nature has but a small idea of utility. Let her alone for a year, and the whole country would be covered with thistles and stramonium. Nature should not be followed, but improved.

The bread of life is love; the salt of life is work.

$4,356 WORTH OF PEARS ON AN ACRE.

The Ellsworth (Maine) American tells us that Mr. C. A. Nealey, of Eddington, Penobscott County, recently took into the village, one morning, forty bushels of pears, and retailed them out in less than an hour, for two dollars per bushel, or eighty dollars. Twenty bushels of these pears grew upon one tree, making the product worth forty dollars. Now, we will allow that tree a plot of ground just twenty feet square, or four hundred square feet, which is all that a pear tree of anything like modest pretensions would require. An acre, then, would contain one hundred and eight and nine-tenths such plots, and, *of course*, just that number of pear trees. The product of these, at forty dollars per tree, is *at the rate of* $4,356 per acre.

If anybody is disposed to criticise this method of estimating, we shall fall back upon the example of the "distinguished agriculturist," who raised such unheard-of crops of cabbages and potatoes, by the aid of some science and "some" fertilizer. He produced one great cabbage that weighed ever so many pounds—six, we believe; it may have been ten or fifteen. Now, that cabbage occupied a plot of ground just two feet square, and since there are 10,890 such plots on an acre, of course his whole crop (one cabbage) was *at the rate of* 10,890 great cabbages per acre. These, at ten cents each, amount to $1,069 for an acre. Is not this perfectly plain reasoning?

But the pear man is ahead. Let us try the potato patch. One hill was dug which measured just six quarts of splendid potatoes. With the hills three feet apart each way, we have 4,840 hills, or 876⅔ bushels to the acre, which, at $1 25 per bushel, is *at the rate of* $1,095 31¼ per acre. And as there were eight acres in the field, the crop was, of course, 7,010 bushels, or $8,762 50!—all produced by a few hundred pounds of a special fertilizer. But from eight acres the pear man would have realized $34,848. So he is still clearly ahead.

If any persons wish for more specimens of great crops, *at the rate* of so much per acre, or per hundred acres, let them run over the Patent Office Reports—Agricultural Division—and the "Transactions" of sundry Agricultural Societies for a few years past.

If not satisfied with the examples there found, we can, perhaps, point them to some agricultural papers, or to the writings of a single individual, which will, we trust, satisfy their utmost desires.

But seriously, the yield of pears referred to above, which we have simply taken as a text for some allusions to a current species of humbug in crop estimates, was not an incredible nor an uncommon yield. Hundreds of other pear trees have given as profitable crops, and tens of thousands more will be required before our markets will be amply supplied with this delicious fruit. It costs comparatively little to raise a few trees, and, as soon as grown, they are most productive mints for coining gold, with little further outlay. Neither Mr. N. nor any other sensible person expects to cultivate a hundred such trees upon an acre; but enough of fair bearing paying trees can be raised to induce many persons to enter more extensively into pear cultivation.

EXPERIMENTS IN RAISING SPRING WHEAT.

Mr. J. V. M. Wyckoff, of Middlebush, N. J., last spring sowed one acre with one and a-half bushels of Golden Drop spring wheat, upon a red shale soil. A corn crop, manured in the hill with ashes and hen manure, was removed the previous season. The ground was plowed in the latter part of March, and the first week in April 300 pounds of Peruvian guano per acre was applied and harrowed in. The wheat was then sown broadcast and plowed in with a corn plow three to four inches deep, and followed with a light harrow.

The crop came up well, and grew very rapidly until early in June, when it was attacked by the Hessian fly, turned quite yellow, and remained so for nearly two weeks. It then recovered, assumed its green color, grew luxuriantly, bloomed out well, and bid fair to give a great yield. But it had been put back so much at first by the Hessian fly, that it was now attacked by the clear-winged fly (or midge—see vol. xiv, p. 369), and the full plump heads were so much injured that the ultimate yield was only seven bushels per acre.

This experiment was interesting as showing the good effects of the method pursued. The crop was so vigorous that it withstood and recovered from the attack of the first brood of insects, and even produced something of a crop after a second attack.

Ice Houses.—There are few farms, of any size, but which will afford facilities for gathering a crop of ice during the winter; or, perhaps more properly speaking, where the occupants of which can not obtain in the vicinity sufficient to fill a good sized ice-house. There are also few structures about a farm, that will prove more valuable to a farmer, as a matter of interest, and to his family as a matter of luxury, than an abundance of ice in the warm season. A house will cost, when its real value is considered, a very trifling amount, as it can be constructed mostly by the labor connected with the farm, with the help of a carpenter; and the filling of it is done at a season when the duties of the farm are light. All ice-houses, and especially small ones, are better constructed under ground. There should be a wooden frame-work, with double boarding all round, and with a space of some six or eight inches between, filled with tan, or cut straw well packed in; there should also be a double roof, admitting the free circulation of air between them, as well as a double door. Clean straw should be put in the bottom and along the sides, when filling with ice. The ice would keep much better if sawed in blocks of one size and packed as bricks are piled. None but pure, solid ice should be taken, if it can be obtained; and the lower the temperature is when cut, the longer the ice will keep. Even as a family comfort, no farmer should be without an ice-house, and once having it, he would find it indispensable.

For the American Agriculturist.

TRIAL OF VARIOUS SEEDS.

Having received from different sources several kinds of seeds for experiment, I will state the result:

Stowell's Evergreen Sweet Corn.—This I find to be a rapid grower; remarkable for its productiveness, two or three stalks springing from a single grain, and each of these has two ears and sometimes more. (It is said that it can be kept green a great while by tying the husks together at the little end.) The grain is thin, and the ear is about six inches long.

Imperial Watermelon.—I received seeds of this from Rev. Wm. Clift, of the Agriculturist. It is a viny plant, frequently covering a piece of ground fifteen feet in diameter, and bearing four or five melons from one seed. It has a very thin white shell of a quarter of an inch in thickness, full of seeds, light red flesh, and agreeable to the taste.

Lady Bean—Is of a small size, very productive, pods three inches long, containing from six to ten beans a quarter of an inch in length.

Hemp.—Why do not the farmers of New-Jersey raise hemp. From a small trial I had with it I should think it a profitable crop. I sowed a pint of seed, and raised six quarts of seed and 50 pounds of stalks.

Chiccory.—Will some one inform me if it is a bad weed—hard to eradicate when once started?

With this you will receive some of the seeds described above, which I hope you will try and give your readers the result. I would be happy to send some seeds to those wanting to try them, if they will send a couple of stamps to pre-pay the postage.—John Fleming, Readington, N. J.

To Make Hard Water Soft.—Water is frequently hard from holding in solution a quantity of carbonate of lime. It may be rendered soft by the addition of a little quick lime. The *rationale* of the process is this: Carbonate of lime is insoluble in pure water containing carbonic acid. Any water, therefore, that contains carbonate of lime in solution contains free carbonic acid. When quick lime is added, this free carbonic acid unites with it, forming the insoluble carbonate of lime; which, together with the carbonate of lime originally in the water, falls to the bottom of the vessel, and the supernatant water is soft.

Bird's Nest Pie.—Take a deep baking tin, and set as many apples in it as will cover the bottom. Pare them and remove the core from one end; make a custard and fill each apple, as it is placed in the dish. Then make a thick flour batter, pour over the whole and bake one hour. Serve with sour sauce.

It is sufficient that every one in this life should do that well which belongs to his calling.

For the American Agriculturist.

WILL BOOK-FARMING PAY?

Within the last few years agricultural books and papers have increased with surprising rapidity. That they are read can not be questioned, for if they were not they would not be purchased. It is thought by a few who read, and more who do not, that their teachings tend to no good results. Many suppose that to plow, and sow, and reap, as their fathers did, is the acme of agricultural skill, that science, discrimination and liberal culture, have nothing to do with an abundant and remunerative harvest; that full granaries are the blessings of Providence, independent of the husbandman's skill.

Napoleon believed himself to be a man of destiny, that success was his because decreed by fortune or fate; yet he neglected no means for the accomplishment of his purposes which human ingenuity could devise or skill execute. "The Lord helps those who help themselves," has become an established maxim. It is true, the sun shines and the rain of heaven descends alike upon the fields of the thriftless and the thrifty farmer; yet he who with judgment puts the accumulating store-house of agricultural literature into full requisition in his every-day labors, will have the least reason to repine at unproductive seasons, and the greatest cause for thanking a bountiful Providence.

The object of agricultural books and papers, is to develop the bearings of science upon farm interests, and to accumulate the successful experiments and experience of the most enlightened, and bring such intelligence to the understanding and practical comprehension of those who read. The object is not to advocate utopian schemes or impracticabilities, but to expose error and advocate progress in all the departments of agricultural knowledge. It is true that prudence and common sense must guide both our knowledge and our industry, for facts are not of universal application, and judgment is ever requisite to make science tributary to the advancement of the practical avocations of life.

The lawyer would make a sorry appearance before a court of justice, ignorant of the literature of his profession; that physician would have no reason to boast of his success, who had not spent long years in study, and who did not, by journals and reviews, keep posted in the advancement of his profession; that farmer who does every thing by chance, and nothing in accordance with an enlightened system, will doubtless succeed but little better than ignorant practitioners in either of those professions. Science appertains to agriculture as much, and perhaps more, than to most other branches of business. It is expected that the lawyer, the doctor, the mechanic, the engineer, &c., should understand his business, and is there any good reason why the farmer should not do the same? In all nations, and in all times, that nation that has paid the most attention to agriculture, has prospered most; n fact agricultural interests stand at the foundation of human happiness, progress, and prosperity. Every thing connected with "seed time and harvest," is rich in interest to mankind—is the response of Divinity to human exertions. He who makes two blades of grass, or heads of wheat, or ears of corn grow where there is now but one produced, is a public benefactor, and does more than can be done in any other way to banish starvation and misery from the earth. In view of these facts, it is not probable that the multiplication of agricultural books and papers and the dissemination of intelligence upon farm subjects, will lessen the profitableness of labor.

The man whose mind is the most meagerly supplied with agricultural knowledge, is the most ready to decry the utility of the same. The man who reads least, is he who inveighs most against book farming, or the practicability of knowledge in general to the cultivator of the soil.

Will book farming pay? is a question which involves just this: is intelligence not a detriment to the farmer? Is not knowledge at a discount and ignorance a source of profit to him who cultivates the soil? Many profess to believe that practice is everything and science nothing. Science, it is true, will not alone produce wheat, or corn, or oats, or potatoes, but there is not an acre of land that the practical hand may not make produce *more*, when guided by a scientific head. It requires intelligence, and thought, and judgment, to dig golden treasures from the earth, without exhausting the mine. The practical farmer requires the aid of science, to adapt manure to soils, and soils to the growth of crops he designs to cultivate. Many a man has grown poor and his farm poorer, while engaged in *practical* agriculture—has been compelled to sell and change his business or his location, while a new occupant has enriched his land and, at the the same time, his purse, by so combining practical and scientific agriculture, that they shall go hand in hand in accomplishment of the objects for which he labors.

Many a man has said, "Away with your book farming—your scientific agriculture; give me the practical cultivator." No one holds practical farming in higher respect than I do; but that word *practical* has done much mischief in the world. No man becomes a good practitioner at any thing by intuition. The best practical lawyer is he who—all else the same—is the best acquainted with the literature of his profession. The same is the case in medicine, and we have no doubt but that the principle holds good in agriculture.

Agricultural science is the result of no one man's labor, but that of generations of men, whose aim and ambition it should be to advance it, and to set still further forward, in the regions of unprofitable ignorance, the outposts of agricultural knowledge.

O. C. GIBBS, M. D.

Perry, Lake Co., Ohio.

The wisest men have their follies, the best their failings, and the most temperate have now and then their excesses.

IS RED CLOVER INJURIOUS TO HORSES.

Many farmers are strongly prejudiced against clover hay, especially for horses, supposing, when fed to them for any length of time, it produces cough and tends to heaves. Perhaps if more care was used in cutting the clover for hay at the proper time, and in curing it for the barn in the right way, much of this prejudice would be done away with.

For many years I have kept my horses almost exclusively on clover hay through our long winters, and if the clover was cut when about one half the blossoms had turned brown, and the hay mostly made in the cock, in good weather, so as to retain most of the leaves and heads, and green appearance, I have never known it to produce either cough or heaves. But I prefer it to any other kind of hay I cut on my farm for horses. Perhaps if a horse was kept steadily at hard work, some other kind of hay might be preferable.

I suppose the prejudice alluded to among a portion of our farmers, and others, is coextensive with our country—or, at least, as far and wide as horses are kept and stabled. For in August, 1852, Mr. Ewbank, then Commissioner of Patents, issued printed circulars to almost every section of the Union, propounding a series of questions on rural affairs. One of those questions was, "Does your experience show that red clover is injurious to horses?" By referring to the answers to the above querry in the Patent Office Report, for 1852-3, I find some twenty-five or more responses, from many of the different States, most of which I will copy:

Alabama.—I. W. says, "I do not think that red clover is in any way injurious to horses."

Greenville, S. C.—H. M. E., has grown clover in South Carolina for twenty years; says clover should be cut when free from external moisture, cured mostly in the cock. If too old, or wet when cut, stock are not fond of it; but the great avidity with which they devour it when properly cured, fully compensates for all the care necessary to be taken; and therefore we must always keep it sweet, for when sour it will salivate a horse or mule severely. And this is one reason that persons have supposed that it was injurious to horses. And one other way it will injure horses, as will any other hay or corn-blades, viz: when it heats in curing, by being bulked too soon, it gets moldy and dusty, and if fed to a horse in this state, it will produce a cough, and finally bellows, tisic, [or the heaves, as we Yankees call it,] but in no other way does it injure any stock.

Virginia, Preston Co.—G. W. L. says, "I do not think that red clover is in any way injurious to horses, provided it is good."

Virginia, Fauquier Co.—J. L. B. says: "Green clover is a preferable grass for raising colts, but not good for work-horses, as they can not endure heat and fatigue when feeding on red clover."

Dixmont, Me.—W. U. Jr., says: "My experience does not show that red clover is injurious to horses; on the contrary it is considered a favorite feed for them."

Bloomfield, Me.—E. W. says, "Red clover is not materially injurious to horses, providing they have it all sweet. The great danger lies in the leaves of early summer. They die as the clover shades them, and become dust, which the horse inhales, sadly to his cost and value."

West Rupert, Vt.—I. P. says: "He has no experience to show that red clover is detrimental to horses."

Newport Co., R. I.—D. F. "does not think red clover injurious to horses."

Hillsboro' Co., N. H.—A. G. C. says: "Clover, to be free from danger to working horses or oxen, ought to be cut and wet with cold water."

Crafton Co., N. H.—H. M. says: "I have no doubt but clover will give horses the heaves, by over feeding when they are not at work."

Columbia, Conn.—J. L. Y. says: "Clover is thought to be injurious to horses, by most people, tending to an irritation which results in heaves. Others contend that if the clover is cured in a proper manner, it will not produce cough or irritation in horses, sooner than any other kind of hay; and this opinion seems to be gaining ground, and people are more particular about curing it."

Salem Co., N. J.—D. P.—"Experience does not show that red clover is injurious to horses when fed in moderate quantities."

Another, T, S., from the same State and county, "thinks it is not safe to feed red clover, unmixed, to horses."

Seneca Co., N. Y.—"Timothy hay is preferred for horses; it is thought that clover inclines them to cough and heaves."

Chatauque Co., N. Y.—L. R. says: "Having for the past twenty years had in constant employ from 20 to 30 horses, I have been led by experience to believe that red clover hay, fed to horses in the usual manner, is injurious, and many times creates a cough and heaves. It may be fed in small quantities when *wet* or soaked in *water*, without injury. It undoubtedly makes much difference in the manner clover hay is made, as it never should be spread, and remain so until thoroughly dried, but wilted and cured in the cock; and when put into the mow, a little salt applied will tend to keep it in a state in which the dust will adhere to it, and not rise when fed, which I think is the great cause of injury."

Ontario Co., N. Y.—G. W. says: "Have no reason to think that clover that is cut at the proper season, and well cured before housing, is at all injurious to any animal."

Big Flat, N. Y.—I. H. says: "My experience does not show that clover is injurious to horses; but, on the contrary, good for pasture, and if properly got and cured, also for hay."

Westmoreland Co., Pa.—F. I. C. says: "Cure clover in the cock, and find it the very best hay for our stock. If properly managed, I consider it superior fodder for horses. The prejudice against its use for horses arises entirely, I am persuaded, from improper treatment in curing. If suffered to parch in the sun, as is the common practice, the leaves crumble into powder that the beast inhales, which produces a cough, and ultimately the heaves. My horses, eleven in number, are fed exclusively upon it, with a small allowance of corn or oats when at work. They are always in good condition, and are able to draw heavy logs to the sawmill, at which they are generally employed during the fall and winter. Upon every tun of hay, as it is housed, I scatter a peck of salt."

Warren Co., Pa.—F. F. says: Red clover, well cured, will never prove injurious to any horse or other animal."

Chester Co., Penn.—N. L. says: "Red clover hay is injurious to horses that have not sound wind, and some think that very dusty hay will produce heaves. But if clover hay is properly cured, and 'got in' without rain, it will keep horses in better condition than any other hay."

Lucerne Co., Pa.—H. F. M. "Red clover hay is not injurious to horses."

Mark Co., Ohio.—M. R. "Red clover is not injurious to horses."

Rush Co., Ind.—J. M. says: "I have not found good clover hay injurious to horses."

Bedford Co., Tenn.—W. B. says: "I do not know that red clover is injurious to horses."

Iowa.—D. M. C. says: "We have never known red clover to injure horses."

From the foregoing extracts, as might have been expected, it will be seen that men differ much in their opinions in regard to the good or bad qualities of red clover hay, as food for horses; but it will also be seen that a large majority of the responses to Mr. Ewbank's *question*, are strongly in favor of clover hay as dry forage for horses, if cut at the right time and properly cured and housed.

I think most farmers would find it for their interest to sow clover-seed liberally with their other grass-seeds—to sow it also for the purpose of plowing in—green manuring with oats, or barley, or other spring grain, even if the stubble is to be plowed in in the fall. To sow clover-seed liberally, the farmer should raise his own seed. The second crop usually produces the best seed; 'tis not necessary that the clear seed should be sown—it will vegetate just as well when sown in the chaff. Farmers, try it.—L. B., in Farmer and Visitor.

Watermelon Molasses.—An article has been going the rounds of the papers about the practicability of making molasses from watermelons. We felt incredulous on the subject, but have recently been presented with a bottle of it by our friend Philip A. Mason, of Woodbury, New-Jersey, who is well known in this market as a successful grower of the mountain sweet watermelon. It was really a nice article, clear, sweet, and of a very pleasant flavor. He informed us the only process was to boil down the pulp to about one-half. The boiling was continued for several hours. Whether it will pay to manufacture molasses in this way is another question, and a matter of very great doubt.—Pennsylvania Farmer.

That which is known to three persons is no secret.

For the American Agriculturist.

LET YOUR SEED CORN SUIT YOUR CLIMATE.

In your last month's number of the Agriculturist, you say that the Hon. E. Everett exhibited an ear of corn containing 720 kernels, and that you have an ear from Virginia containing 863 kernels.

Last October, I underdrained, subsoiled and manured with muck and stable-compost, three acres of worn-out clay soil that had been in grass, but now yielded nothing worth cutting. This spring, I harrowed, cross-plowed and planted it in corn, about 3½ feet apart, 4 grains in each hill, throwing a handful of hen manure and ashes in every hill, having previously soaked the corn in brine, and dusted it with plaster. It came up well. I plowed and hoed it only once; but it matured late—indeed some of my neighbors said I should not make one-third of a crop, because it was a kind of corn unsuited to this climate. I procured the seed from Mr. Allen, but without indicating what kind I wanted. The error was mine, not his. Had I planted the usual corn of the country, I am satisfied from the results of this, that I should have had a very large crop. As it is, it has not turned out a good crop of hard corn, nearly one half being pig corn. The stalks were very large and very tall, some measuring 15 feet high, and averaging 13 feet. It varies from 8 to 10 rows in the ears, averaging 12, and I have some ears containing 880 grains—many from 600 to 700. You have thus my first year's experience in corn-raising. With the suitable seed for this climate and the same treatment, I am satisfied that I can raise large crops.

A. Goldsmith.

Ninety miles up the North River.

ELOQUENT EXTRACT.

We quote the following extract from an address delivered by Hon. J. W. Miller, before the New-Jersey Agricultural Society, at Camden:

The epochs through which our globe has passed have been characterized by the names of various metals. There has been the golden age, the silver age, and the iron age. The era in which we live might be called with propriety the quick silver age; for everything seems to be on the move. Each individual particle quivers in trembling haste to run upon its neighbor, and thus form a massive body, which when once formed, rolls into some crooked direction which neither mathematics could calculate, nor wisdom foretell. Politics, religion, manufactures, navigation, every art, seems pregnant with revolution and heaving into new birth. Even Agriculture the oldest and most universal of human pursuits seems inspired by the genius of innovation. Let not, therefore, the old farmer, surrounded by his broad acres, suppose that he can entrench himself behind the natural advantages of soil and location, and defy the inroads of modern improvement; for before he is aware, some invention of art or discovery in science, may deprive him of his natural superiority. Let him remember that in these days of marvelous invention

soils may be manufactured, and lands transmuted; that under the influence of new fertilizing agents, and an improved mode of cultivation, neglected sand plains and barren hills are brought into successful competition with the richest alluvial lands; and wheat and corn, vegetables and fruits are made to flourish, where neither grass nor grain ever grew before.

IMPORTANT FIGURES.

According to the census for 1850, there are 118,457,622 acres of improved land, and 184,621,248 acres of unimproved land in the farms of the United States. The statement under the head of improved lands is meant only to designate such land as produce crops, or in some manner adds to the productions of the farm. By unimproved lands we are to understand those connected with, or belonging to those farms from which productions are returned. The aggregate cash value of farms is estimated at $3,270,733,093, and the value of agricultural implements at $151,569,675. These figures show the vast preponderance of the Agricultural interests of the country over all others.

But we can go further. The estimated value of the live stock of the country, by the same census, is $543,969,420. While the products of agriculture amount to more than one thousand six hundred millions of dollars. The heaviest crop grown is Indian corn. The amount raised of this article in 1850, exceeded five hundred millions of bushels; more than three hundred millions of pounds of butter were made that year, and upwards of one hundred millions pounds of cheese. The product of wheat is stated at one hundred millions bushels, and of oats one hundred and forty-six millions. Cotton yielded 987,449,600 pounds that year, and potatoes about one hundred millions bushels. There were two hundred millions pounds of tobacco raised, and about fourteen millions tuns of hay. Thirty-four millions pounds of maple sugar were made, nearly two hundred and fifty millions pounds of cane sugar, and thirteen millions gallons of molasses. The value of home made manufactures was $27,481,399, and of slaughtered animals $109,485,757.

What an enormous and overwhelming interest the agriculture of this mighty country represent! And yet we venture the assertion, that notwithstanding all the light which has been thrown upon the practice of husbandry, all the labors of enlightened men of science, there is no subject that is so imperfectly understood, none about which so little pains are taken to inform ourselves concerning it.—Tit for Tat.

To Shake off Trouble.—Set about doing good for somebody; put on your hat and visit the poor; inquire into their wants, and administer unto them; seek out the desolate and oppressed, and tell them of the consolations of religion. When you see a person who in any way needs your help or encouragement freely offer it to him. I have tried this and found it to be the best medicine for heavy heart.

EXPERIMENTS IN FATTENING CATTLE.

John Sears, President of the Medina Co. Agricultural Society, has a good deal of experience in feeding cattle. He writes us from Litchfield, December 9th, as follows:

"I found in attending our State Agricultural Convention, at Columbus, this week, there was a general inquiry among farmers and feeders of cattle, to learn the best and cheapest mode of feeding. In 1853, I half fed sixty head of two and three year old Durham steers. The average weight on the first of December, when I commenced feeding, was 1,050 lbs. I fed them hay and corn in the ear without husking. The average amount fed to each steer daily was one half bushel of corn, and fifteen pounds of hay. The corn was fed in the morning, and the hay at noon. They were turned to grass on the 15th of April, and were sold the 15th of June, when the average weight was 1,300 pounds.

I also fed in 1854, the same number of steers, and of the same grade. The average weight at the time I commenced feeding was 1,025 lbs. I began feeding them in the stable the 20th of November. The manner of fastening them was with a rope, tying the master steer first, and so on until the stable was full. I fed 3½ quarts of corn meal to each steer in the morning, then turned them out to water which was in the yard, for an hour. After tying them up again, I fed *ten* pounds of hay to each, and the same amount again at night. They were turned out to grass on the 15th of April, and sold on the 15th of June, when their average weight was 1,400 lbs. My opinion is that cattle that have been nicely stabled through the winter, will take on flesh much faster when turned to grass than those that have been fed out of doors."—Ohio Farmer.

ERRORS IN COMPOSTING MANURE.

The farmer's manure heap is usually the receptacle for every substance that has served its original purpose; but it is a mistaken idea that everything thrown in there will serve a useful purpose. We may however, just say here that this error has considerably influenced farm practice. Belief in the alchemy rather than the chemistry of the farm yard, has led persons to cart soil into the manure yard and carry it back again with dung to the very field from whence it was taken; adding materially to the bulk and expense of manuring. They presumed that they added to its value. But the effect upon the farm yard manure would be merely to retard decomposition and thus might be a loss or a gain according to circumstaces of soil and crop.

Animal substances, offal, and fish of every description are also unprofitable when applied to farm-yard manure. The natural tendency of animal substances to enter into the putrefactive fermentation is well known to be greater than that of vegetable substances. By placing them in the manure heap, we in a further degree facilitate the quality in which they naturally excel, one of the tendencies of which is to rob them of their most valuable elements, nitrogen. Judicious practice should avoid this error, by adopting, if possible, a system having an opposite effect.

Lime is one of the substances which it is also an error to use with compost in which we have farm-yard manure. It is equally an error to mix lime with any compound rich in ammonia. The tendency of lime in all composts, is to promote decomposition and to waste nitrogen, which escapes, by union with hydrogen, under the form of ammonia, which is the very treasure of the dung heap, and of most other manuring substances.

CURB ON CHECK REINS ON HORSES.

There is no abuse of this valuable animal so wanton and utterly useless as that of leaving the check rein *taught*, when standing. It is perfect torture to them, and we never permit ourselves—and we use horses constantly—to practice so cruel a habit.

An article in the Ohio Cultivator, written by the worthy and humane Editor, is so much to the point on this flagrant abuse, that we present it at once to our readers; and we will further say, that every newspaper and other periodical in the country, should print it for the sake of humanity, if nothing more:

"We have a serious intention of erecting ourselves into a permanent institution for the relief of distressed animals. In a late number we glanced briefly at the unhorsemanlike practice of sitting upon horseback while the horse was at rest. We come now to a more prevalent evil practice, in the abuse of the curb and check rein. In the Cultivator for 1854, p. 291, is an article on this subject from an English paper, which ought to be repeated, or something like it, every year.

"As we go upon our daily beat from the cottage on 3d-st. to the Cultivator office, our sense of *horsemanity* is almost daily outraged by what we see at the rails and posts along the curb-stone. Country people come in with their generally well kept horses, and hitch them up while they do their shopping or other errands, which sometimes takes half a day or more. Now these people have not the slightest intention to abuse their horses; on the contrary, many of them would fight for their steeds as soon as they would for their wives or children; but this is the way they do it: Most of those who come on horseback ride a Spanish saddle with high pomel, and with a short bridle rein. They dismount, and to keep the bridle rein from getting over the horse's head, they hitch it back over the pomel, by which it is drawn tight, and the horse's head slightly curbed. If the horse was in motion, this slight curb would cause very little uneasiness, but while all the muscles are at rest, this tension soon becomes exceedingly painful, especially as many of these country horses are not at any other time subjected to the curb. The horse bears it very well for a little while, but soon begins to step out and champ the bit, and if it had the gift once vouchsafed to Balaam's ass, would reprove its owner with all the modern improvements of the language. But as the poor brute has

no such faculty, and as the rider is the ass in this case, it must grin and bear it; unless, indeed, the Editor of the Cultivator happens along, and quietly putting a finger under the rein fillips it off the horn, and goes on as innocently as if nothing had happened, while the relieved animal holds out his grateful nose and says, "thank you, old fellow!" in a kind of horse latin, that is perfectly intelligible to the editor aforesaid.

"One day last fall we were sitting in the store door of our friend Nelson, of Urbana; it was the day of the County Fair, and as Nelson's store is right fornenst the public square, the rural equestrians came in and soon filled the rails with their saddle nags. The riders as usual hitched up the bridle rein over the horn of the saddle, and went to see the sights. We noticed one colt, a spirited iron grey, trussed up in this way, which soon began to show signs of intense torture. Our finger began to itch to get hold of that curb; the colt writhed at the rail, and we hitched about as uneasily on our seat, and finally as we were about going to the rescue, after saying to Nelson that a man deserved to be —— who would truss up a horse in that way, the gray luckily slipped the rein off the pomel, and out went his nose, the gladdest colt on that public square; and we were about to take off our hat and give three cheers, when we bethought it might compromise the dignity of the Cultivator, so we only clapped our hands and gave the cheers inwardly.

"But this is only one phase in the abuse of the check rein. Farmers are not the only sinners in this respect; in fact, they are least guilty, and it is because their horses are so seldom subjected to check, that they suffer most intensely when it is imposed. Our town and city folks have most to answer for. Here we see even the cart-boys, with a tun of sand in their cart, and the poor horse—which is generally a cast-off omnibus or livery horse—checked up most unmercifully, because the ragged driver takes as much pride in having his team *look well*, as his more aristocratic predecessor; and at every jar of the cart, or misstep of the poor damaged brute that hauls it, the latter gets the full benefit of the jolt upon his jaws, which are by this time providentially pretty well hardened.

"The evil begins much further back. The colt in the barn-yard, that has never known restraint until now he is some three years old, is roughly caught and a bit forced in his mouth, a crupper put over his tail, and a belt around his body, and then his nose drawn in half way to his breast, when he is left to suffer and sulk, sometimes for half a day. When this editor was a lad he was guilty of just such enormities, but these are among the original sins of which he has most heartily repented. In breaking a colt to bit, the rein should never be drawn so as to cause positive pain in the muscles of the neck; for besides the inhumanity and uselessness of such a course, the horses' mouth is irretrievably damaged by it for all future use; a good mouth is indispensable for a good saddle horse.

"When the horse goes into harness, again comes the abominable curb, to make him hold up his head. As before remarked, in a little horse, with all his muscles in action, a moderate curb is not very painful, and is often useful after long habit, in steadying his carriage; it is like every other bad habit in this respect. But to hitch up the team to a post, leaving the curbs tightly drawn, is an unmitigated abuse. Every day we see fine carriage teams standing in that way, left by the hour. The noble beast first puts out his fore feet, then gathers again, turns his neck quite to one side, then to the other side, to relieve the aching muscles, and all because the thoughtless driver had neglected to take the check reins out of the hooks, or for fear his team would get their heads down. On Sundays our devotions are often very much disturbed by such sights. Fine carriage teams are trussed up for two hours at the church door, sometimes hot and in fly time; they can only twitch their skin and wag a stump of a tail; sometimes in winter, with the keen wind singing in their ears, and their forefeet in the frozen slush of the gutter. In such cases, if it were not Sunday, and if it were not for disturbing better worshippers, we would like to throw a torpedo into the pew of the owner, who ought to be made to sit astride of a sharp rail without any cushion on it, all the time his team was hitched up that way."

A FEW MORE FACTS ABOUT GUANO.

As it is often asked whether guano is a profitable fertilizer for common farming, we think there is no better way of knowing than by carefully noting experiments, and for this purpose we have been somewhat particular.

We last spring purchased some four bags and experimented on different articles of products with the following results. On one half acre of potatoes, we applied seven dollars worth, by dropping a small handful to a hill and then passing along before dropping the seed, with a small iron tooth rake, and mixed the guano with the soil in the bottom of the furrow.

On this half acre we had 70 bushels of good round red potatoes, and but for the rust that struck the tops in August, as were other fields in the neighborhood, we think the crop would have been much larger, but this far exceeded an adjoining piece manured at the same expense with other fertilizers.

In the same field and adjoining this, we had a piece of winter rye, sowed in September, 1854, after taking off a heavy crop of corn fodder, and sowing guano broadcast at the rate of $10 per acre; yielding at the rate of 16 bushels of good rye; a portion of the field that did not winter kill producing at least 25 bushels per acre. These experiments were on land worn out by continual cropping for the last 16 years without manure.

On another piece of the same field we planted a few rows of the white flat corn, in drills about two feet apart, and seeded at the rate of one quart to ten rods in length of rows, and guano at $10 per acre, which yielded an amount of fodder almost incredible.

Wishing to know the benefits of guano on grass land, for top dressing, we accordingly selected a piece in the middle of a field, and after measuring and staking out one eight of an acre, we divided it into two equal parts, and on No. 1, just the sixteenth of an acre, we applied 12 lbs. of the lumpy portions of guano after the fine had been sifted from it, by dissolving it in some five or six pails of water, and applying to land by the use of a common watering pot. This was done early in the spring before the starting of the grass. Soon the grass on No. 1 gave signs of something more stimulating than that of No. 2. These two lots remained until the time of cutting, when each piece was carefully mowed, dried and raked seperately, and after standing some three or four days in the cock, again spread and dried sufficiently for the mow, they were taken to the barn and weighed. No. 1 weighing 126 lbs., No. 2, 42 lbs. Thus it will be seen that the portion to which the guano was applied, contained just three times the amount of hay of that to which none was put, or in other words 12 lbs. of guano produced 84 lbs. of dried hay, making at this ratio, one tun of guano produce seven tuns of hay.

But the question is often asked, is guano good for anything more than one year? To this our answer is by experience.

In 1854 we planted a piece of potatoes on field land with ten dollars worth of guano to the acre, and had a fair crop; the last spring this sown to oats without more manuring, and yielded 30 bushels to the acre, the straw of which was worth for fodder twice the amount of the last crop of hay cut on the land.—T. G. H.—Granite Farmer.

Coal Ashes.—If farmers who reside in the coal regions have not tried the benefit of coal ashes on their cherry trees, the sooner they do so the better. I recollect well, when a boy, of carrying the coal ashes from the grate and piling them around a little cherry tree, which was known by all the family, as the "little orphan," on account of its sprouting from the roots of an old tree which died, and the peculiar hard time it had in endeavoring to reach the stature of even a bush. The summer after the coal ashes were deposited around its base, it put forth vigorously, and in three years was quite a thrifty tree, heavily laden with luscious fruit. My father seeing the good results of the ashes, a wagon load was thrown around the base of each tree on the farm, and the effect was astonishing. Old trees that were fast decaying were resusticated, and sent forth new branches, and bore fruit abundantly. Let those who have coal ashes test its virtues upon fruit trees.—Ex.

A gentleman told a good story the other evening, in his lecture, of what a New-Hampshire farmer said of his neighbor, Frank Pierce. The farmer was interrogated concerning the President and what was thought of him at home. "Oh," said the farmer, "he is a good fellow up here, but come to spread him all over the country he is dreadful thin."

CARROTS FOR HORSES.

A clerical friend of ours who is more skilled in sermons than horse flesh, very gravely informed us, that he did not think much of carrots as a food for horses. He had been feeding his with this root, and the result was that he was running down. He gave him more value in carrots and oats than when he fed on oats and hay, and yet he did not do as well. On catechising the dominie a little, we found that he had withheld hay altogether, giving no bulky food whatever with the carrots. Of course the animal grew poor. The food of a gramenivorous animal must have bulk as well as nourishment.

This we presume is a fair sample of those experiments which result in the condemnation of carrots. The testimony of careful observers goes far to show, that they are nearly as valuable as oats, bulk for bulk, when fed with them, after two years trial, and shall enlarge their cultivation next season.

THE AMERICAN HERD BOOK.—The favor with which the second volume of this valuable work has been received by our American cattle breeders has induced them to call for the preparation of a third volume at the hands of its editor. We have received a full and particular circular, addressed to the Shorthorn breeders, requesting them to prepare their pedigrees for compilation, and send them in by the first of December, 1856, that the volume may be ready for delivery by the first of May, 1857. Such breeders of Shorthorns as may not have received a circular may obtain them by addressing Lewis F. Allen, Black Rock, Erie Co., N. Y.

TAKE A LOOK AT THE ADVERTISEMENTS.—Our business columns are quite full of agricultural *information*. It is understood, of course, that we insert these advertisements not only because they give just such information as our readers want, but also because the advertisers pay for their insertion. We assume no responsibility for what each one says of his own wares offered for sale, and since we charge all alike in proportion to the space occupied, though it would give us pleasure to respond to the wishes of those requesting, and probably deserving special attention, we feel bound to content ourselves with this general notice. The advertisements are arranged without any reference to order of reception or supposed merit, but just as the printer finds it most convenient to make up the columns. Let the reader look them all through, and see if there is not a chance to buy or sell something to his own advantage.

The Louisville Courier pays the following tribute to the occupations of a farmer:

"If a young man wants to engage in a business that will insure him, in middle life, the greatest amount of leisure time, there is nothing more certain than farming. If he has an independent turn of mind, let him be a farmer. If he wants to engage in a healthy occupation, let him till the soil. In short, if he would be independent, let him get a spot of earth, keep within his means; be temperate, to avoid the doctor; be honest, that he may have a clear conscience; improve the soil, so as to leave the world better than he found it, and then if he can not live happy and die contented, there is no hope for him.

For the American Agriculturist.

CANCERENE.—At the annual meeting of the New-Jersey Agricultural Society, held at Trenton on the 15th ult., resolutions were passed highly commending Jonathan Ingham, Esq., of Salem, for his persevering efforts in making the king-crab available as a fertilizing substance. This manure is known as "Cancerene," and was on exhibition at the State Fair in Camden, N. J. Fertilizers of all sorts are so greatly needed to develop the agricultural resources of our country, especially in the Atlantic States, that he who invents a new one, and succeeds in introducing it, may be reckoned a benefactor.

MERCER.

For the American Agriculturist.

SOME THOUGHTS ON HENS.

RESULTS OF EXPERIENCE.

It is an unquestioned fact that the "Hen Fever" has culminated. The rage for very *large* and very *small* fowls is passed away, and people are now inquiring for such as combine both beauty and utility. The public ought to be thankful that, at least, a part of the people have come to their senses. For never was there any thing, unless it be horse-dealing, which has afforded more and better opportunities for cheating and pocketing funds without rendering any equivalent, than this "Hen Fever." A few unscrupulous persons have enriched themselves at the expense of the many—and the many have learned a useful, though dear bought lesson. Many men from an inherent love for rural pursuits, and many from a desire to benefit others, have also engaged in the "fowl" business. And while a love for rural employment remains, and people have—as the industrious and prudent in this country always have—the means to indugle a well disciplined taste, "biddies" of real merit need have no fear of being neglected. So long, too, as fowls can be kept at so great a pecuniary profit, yankees will be ready in this way to turn "an honest penny."

Early in my "run of fever," I learned that the best way to ascertain the merits of a breed of fowl was to experiment myself, and though I can not boast of a very large experience, I can speak with confidence of a few kinds. Where you can raise chickens and sell them for $3 to $15 per pair, no one doubts that it is *profitable*. But where fancy prices can not be obtained, and fowls and eggs for the market are the only sources of revenue, there has been a variety of opinions as to the profit. My experience and observation leads me to the conclusion, that farmers can produce chickens and eggs at a fair profit. I have doubts whether residents of villages and towns can. I conclude that producing eggs is generally the most profitable—and if this be true the question is "what breed of fowls will give the most eggs on the least keep?" I believe all agree that Asiatic fowls *will* lay well and that they are *hardy*. I object to them because they are such determined setters. The summer past my Brahmas have been so broody, that I have nearly discarded them. In some cases I could not "break them up"—if shut away from the rest, the ground was not too good for them to hover, and if I filled the nest full of water, they set standing, as did the Dutchman's hen. As a general rule, large animals eat more than small ones, and this I think holds true of Asiatic fowls, notwithstanding the opinion to the contrary expressed by many who hold them in high esteem. At present I give the preference to the Black Spanish, as egg producers. They are also a very *handsome* fowl, of medium size, their large, very red combs and white faces making a very pretty contrast to their black feathers. They are hardy and a very good table fowl. They do not incline to set, which is a good quality, if eggs are the sole object. I learn from undoubted authority, that the Bolton Greys are extraordinary layers, but their flesh is inferior. I have known many instances where our native fowls have given large profits. One of my neighbors has during the last eleven months, sold from a flock of a dozen common fowls, 1,151 eggs, amounting to $19.27. Besides this he has raised two broods of chickens. I think this is better than most flocks of Asiatic fowls will do. I shall next season breed Irish Grey Games, and Red Irish Games, and Indian Mountain fowl, and can then give my opinion of these varieties from experience.—C. L. A., West Killingly, Ct.

DRY BROTH.

Dry broth is a very useful and nutritious article. It is very common in Russia, and in other countries amid huge forests where game is scarce and fuel of great price. In traveling in that country, I came to a place where this broth was manufactured, and remained there three days for the purpose of learning the process. It is as follows:

Take half of an ox, half of a sheep, entire ten fowls, ten partridges, and cut all these into small pieces. Place it in a copper boiler well tinned, and pour six quarts of water to one pound of flesh. Cook this in the open air or in a basement over a moderate fire, skim it carefully, and after the soup is well cooked add some vegetables, &c., that is to say, celery, pork, parsley cut fine, and cook the whole ten hours or more, until the soluble portions of the flesh are dissolved. Then strain the liquor through a colander. Place the residue under a press and pour what flows from it into the soup. The residue of the flesh is comparatively tasteless, and may be given to dogs, swine, &c.

The soup which has been strained, is again poured into the boiler, and made to boil moderately. It should be taken from the fire at such time as, when poured off and allowed to cool, it will become a compact mass, resembling chocolate. This moment must be determined by repeated trials. The soup should then be poured into vessels of tin or potter's ware, and suffered to remain several days. The mass is then placed in the sun

or in a dry room, until it shall become dry soup.

Dry soup is prepared of different sizes, of one, three, six, or twelve pounds, and is sold by weight.

It should be observed that in its composition there is no salt, nor spice. Salt has a tendency to soften and moisten it, and any spice does not suit all persons alike. Besides, the broth, being administered as soup and dissolved would not be suitable for the sick.

Horticultural Department.

SELECTING A FEW GOOD PLUM TREES AND HOW TO CULTIVATE THEM.

Knowing that Dr. Underhill has been quite successful in growing fine plums, we requested him to state his method of avoiding the curculio, and also to name a few of the varieties which he considered the best for those who could plant but a few trees. The following is his reply:

To the Editor of the American Agriculturist

In compliance with your request, I will make a few statements on the culture of plums, the means of protection from the depredations of the curculio, and the names of a number of trees that would be worthy of selection for table use, and for supplying our markets.

The means resorted to for preventing the attacks of the curculio, which has been very destructive to the plum for a number of years past, are various; many of doubtful efficacy, and some too troublesome to be carried out in practice. Planting the trees in grounds occupied by poultry, or as the feeding places of the swinish race, *so rich in odors offensive to the sense of smell*, proves effectual in most seasons for driving away the curculio-epicure, and thus secure a good crop of fruit.

It occurred to me about ten years ago, that the plum tree might be so planted on the borders of streams, ponds and lakes, that its entire top would hang over the water, that the curculio seeing that its progeny placed in every plum, would fall into the liquid element the moment it dropped from the tree, would be deterred from the selection of so dangerous a locality, and pass to a more secure retreat. On this supposition I surrounded an artificial lake with a choice variety of the best kinds of plums, planting them so that the entire top hung over the water—the fruit being gathered with the assistance of a boat. They have borne finely for a number of years, and have entirely escaped the depredations of the curculio. The fruit also grows more free from all blemish, and is really beautiful.

I have a variety. Among them are the following kinds, which form a choice selection for the table, and will pay well for those who are in favorable localities for supplying the markets. The Lawrence Favorite, Cole's Golden Drop, Jefferson Green Gage, Washington, Smith's Orleans, Flushing Gage, Imperial Gage, Empress, Winter Gage, &c.

Plum trees do not require the grounds to be cultivated around them—indeed they seem to thrive best when the body of the tree is surrounded with a close sod.—R. T. Underhill, M. D., Croton Point Vineyards.

GOOSEBERRIES AND CURRANTS.

These are fruits that every cottager might grow well without much trouble, their cultivation being very simple and easily understood; yet how seldom do we find plantations of them well managed. The gooseberry is propagated by cuttings, which strike root freely, the young wood of the previous year's growth answering best for the purpose. Slip off the young shoots, and carefully pick out, with a sharp knife, all the eyes or buds at the base or under part, so as to get a clean stem, leaving only three or four at the top. They should then be placed in a little nursery, where they should remain until they become well rooted, which will be the case after the first year. By this method of treatment the plants will not be liable to produce suckers hereafter, which are so difficult to be removed when once established, and rob the plant of a great portion of that nourishment which should be preserved for the production of its fruit.

When the young plants are ready for planting, the plot of ground intended for their reception should be well prepared by being deeply trenched, and if some enriching green crop, such as potatoes or cabbages, with which plenty of manure had been used, were planted upon it the previous year, so much the better. Here the young plants, when lifted from the nursery, should be placed in rows, and at six feet apart every way, care being taken not to plant them too deep—a very common error with most persons. Openings should be made sufficiently large to receive them freely, the bottoms perfectly level; and in putting in the little plants their roots should be spread out horizontally on all sides, and by no means allowed to overlap each other. Good rich mold, with a little old manure or compost, should be placed immediately under and over them; then, having gently pressed them with the foot, the remaining portion of earth should be placed about them, and left quite loose at the surface.

The principal care they will require afterwards is pruning, which should be once a year, and at the most convenient time after the leaves fall off. In pruning gooseberries care should be taken to leave the center of the plant tolerably open, so that light and air may have free access to every part of it, and the branches thinned out until those remaining do not touch or cross each other. The old wood should be removed, in order to encourage the growth of the new, on the presence of which the luxuriance of our second year's crop entirely depends, this being one of those plants which produce their fruit principally on the wood of last year's growth. Should any part of the bush become deficient of young wood, stop back the old branches in that part, and plenty of young wood will be thrown out by them the following year.

Nothing can be worse than for cottagers to leave too much wood on their bushes, as thereby they become too much crowded, and the fruit worthless. If abundant crops of fine large fruit be desired, leave little wood, and supply the plants with plenty of both liquid and solid manure. This should be done immediately after pruning, at which time, also, the ground should be dug, and left open and loose about the plants. November is, perhaps, the best time of the year to take cuttings from, and transplant, gooseberries.

All the varieties of the currant are propagated precisely in the same manner as the gooseberry; and as the black variety produces its fruit similar to the gooseberry, on the young wood, its method of pruning is of course the same. The white and red are pruned in quite a different manner, the young wood being cut back every autumn within a few eyes of the old, to cause them to send forth spurs, upon which those plants produce their fruit.—An Artisan, in London Florist.

NEW METHOD OF PERPETUATING THE PLUM.

Nurserymen are generally very unsuccessful in propagating the plum on an extensive scale. The great difficulty consists in the buds refusing to take, with sufficient tenacity, to become a component of the stock. Sometimes in budding plums, a portion of the wood or bark will attach itself permanently to the stock; but this portion in most cases, is not the part which contains the bud. As the season for budding the plum tree is quite short, the only remedy remaining for stock, on which the buds have failed, is to engraft the ensuing spring; but engrafting the plum is an equally unsuccessful operation, hence the difficulty that is experienced in getting a saleable stock of plum trees.

Having devoted special attention to raising plum trees, for the wholesale trade, for the last ten years, it became necessary for me to devise some method that would facilitate the increase of stock. I had often observed that the buds invariably grew better on wood of the current season's formation, than that of the previous year. Taking advantage of this fact, I subsequently sought the new wood, when practicable, in which to insert the buds; the only fault with this method was, that the trees were worked so high on the body of the stock, that in the case of rapid growing kinds, the scion outgrew the bottom, thus making unsightly and rather unsaleable trees.

I have practiced a method with great success for several years, by which I secure the principle of budding in new wood, and at the same time, work the stocks within an inch of the ground.

In the first place, care must be observed to procure none but sound, fresh seed. In the month of November, the ground must be prepared for the reception of the pits. This is performed by plowing a deep trench. (The soil should be a rather stiff loam, which may be afterwards deepened to eighteen inches with a spade. This trench

must be partially filled with a compost made from exciting manures, and before using should be thoroughly decayed and frequently turned over in the heap, so as to be well incorporated. On this compost an inch or two of earth may be thrown, after which scatter the seed thinly, but let it compass the entire width of the trench. On the top of the seed, I throw coarse gray sand, such as is used in making mortar. Sand remains perfectly friable, and does not oppose the shooting stem of the young plants, when vegetation takes place in the ensuing spring, and it also prevents for a time the growth of weeds, thereby permitting the seedlings to get the start of foul stuff, which, with a little attention, they will maintain throughout the season. The object of this peculiar cultivation, is to force the seedlings into an average growth of two feet the first summer, and by the first of August, they are all in fine budding condition, still growing rapidly; the bark springs from the knife, and affords ready admission to the bud, which, if carefully inserted will not lose five per cent. I have a field of plum seedlings, budded the past season, which will average two and a half feet in hight, and scarcely a bud exhibits symptoms of decay. The subsequent culture is exceedingly simple. The budded trees are permitted to form their first season's growth in the seed bed. Many of them will attain the altitude of six and seven feet. They are then transplanted into the nursery rows, where they may remain one or two years; all will, by the expiration of that time, be fit for sale. If it were not for adopting this plan, my trees would cost half a dollar each, to grow for market.—I. R., in N. Y. Horticultural Review.

A NEW WASH FOR TREES.

Noticing an allusion to the washing of trees with lye, by Dr. Underwood, in your paper of December 1st, I was reminded of the propriety of again noticing a wash for apple trees which I have used with satisfaction for the past three years. Two years ago, I incidentally spoke of it in this journal, and though out of season now, I venture to again call attention to it, hoping that some one else may test it.

Procure soap-stone dust, at the workers of soap-stone, sift it to get out the stones, if you choose, mix it up to the consistence of paint, with soap-suds, and add a very little slaked lime, and if you wish to give it an agreeable tint, stir in a very little yellow ochre. Apply this mixture with a brush to your young apple trees in the early part of the summer, and it will prevent the growth of moss, will keep the trunks cool, (which lye does not) and will give them a handsome, neat and healthy appearance.

Lye is dangerous, and requires much experience. Lime is too stiff, and closes the pores of the bark. But the soap-stone dust incorporates with the bark, and in the winter season presents a handsome buff color, which can not be rubbed off. There is not the least danger, I think, in the use of this wash, or its incorporation into the bark, a the soap-stone dust is mostly composed of clay, and the lime and ochre found, in some form, in the soil. Besides, my trees are healthy, and this fact is better than theory.

Perhaps this dust mixed with some other substances, would be found beneficial—for instance, with guano, for pear trees.—D. W. L., in N. E. Farmer.

GRAPE VINE ROOTS VS. CUTTINGS.

I notice in the September number of your periodical, extracts from and comments upon a forthcoming work on the grape, called the "Vinedresser's Guide." I observe the author prefers the use of *cuttings* in forming a vineyard, and seems to think scarcely a year is gained by planting well rooted vines in their stead. I may say such is not the experience of the most extensive cultivators of the grape on the Atlantic seaboard. I and others in this vicinity find that not only a greater saving of time than a single year is obtained, when well rooted plants, three or four years old, are used in the formation of a vineyard—but that the vineyard when formed is far more valuable, from its being less subject to injury from rotting or mildew, than those made directly from cuttings. We have noticed the fact, and the theory we have adopted is confirmed by experience. Where cuttings are planted to form the vineyard, the roots usually start too near the surface of the ground, where they are under the influence of heat and moisture. The growth is rapid, increased by every shower in the spring; the sap vessels are large, and when the vineyard is old enough to bear, the month of June presents an abundant foliage and great promise of fruit. The drouth coming on in July, the roots being mostly located near the surface, are deprived of the proper supply of nourishment, and soon the rotting commences, which I am informed is far more serious in Ohio and the States adjacent, where their vineyards are formed directly from cuttings, than in the Atlantic States. The roots also, from their nearness to the surface, are far more liable to injury from the frosts of winter. When you have well rooted plants you can set them at any depth that experience teaches to be the most appropriate to the different kinds of soil, and thus secure a proper growth of roots for the support of the vine. It is more than eight years since most of those who are interested in forming vineyards in this and neighboring States, have abandoned the plan recommended so highly in the "Vinedresser's Guide," and our experience leads us to believe a certain and more abundant crop of excellent fruit can be obtained by the mode which we have adopted. Yours, very truly,

R. T. Underhill, M. D.

Croton Point Vineyards, Sept. 27, 1855.

Commercial Register.

Breathes there a man with soul so dead, who never to himself hath said, I will a family paper take, both for my own and children's sake? If such there be, let him repent, and have the paper to him sent.

VINE CULTURE.

So much has been done and written on the vine since the days of Noah to the present time, that the subject may well seem exhausted; yet in the present exigencies of this useful fruit, the experience of any one who has successfully cultivated it in any new or peculiar manner may not be unwelcome.

I will first state what I have done, then my reasons for so doing.

I have vines planted along each side of a span-roofed vinery, six feet apart; these are trained in main permanent stems from the soil to the ridge; horizontal canes are carried from the main stems every 18 inches; these are six feet each in length, and interlace each other from the neighboring vines. Each vine bears fruit every alternate year only on the horizontal six-feet canes, which are then cut off close to the main stem; the following season this vine makes wood only while its next neighbor bears the crop. In this manner I have the house constantly well cropped with fruit, although each vine only bears a crop every alternate year.

Now for my reasons.

Every one with his eyes open must have observed that fruit trees in general, such as the pear and apple, will bear without exhaustion heavy crops every alternate year, and many of them naturally fall into this habit; while a good crop of superior fruit every year off the same tree is not to be expected. If the pear or apple, why not the vine? In fact, the same thing has been observed of the vine; for a bad crop, if the plant is in a healthy condition, is generally followed by a good one, and *vice versa*.

Moreover, a fruit-bearing spur of the vine, and even the young wood generally of a previously cropped vine, does not ripen so soon or so well as another vine in the same house which has no fruit on it demanding supplies. Now, what has been observed as beneficial for a crop of fruit incidentally, why not render permanent and regular? This I have done with the very best results; and in the vinery to which I have here alluded, there is no flue or heating apparatus, all the heat obtained being from a neighboring vinery, to which this is attached, by opening the door and end sashes between the two. At present the wood of the non-bearing plants is strong and well ripened, while much of that on the fruit-bearing ones is raw and green. Besides the advantages here detailed, it may be observed that this system includes others acknowledged by intelligent growers; these are, long rods and horizontal training.

I intend, in another season, to have permanent rods along the ridge of this house, and to adopt dependant training—that is, from ridge to eaves—instead of the horizontal, as at present.

In another lean-to vinery, I have prepared to carry out the alternate system of cropping by vines planted at the back wall of the house; these, by long canes led down the rafters, I intend to crop alternately with the vines in front, by long canes led up the rafter from them.—M. D., in London Florist.

BEGONIAS.

Very many of the species contained in this genus deserve special attention, from the profusion and successional development of their flowers, and also their graceful and compact habit under good cultivation. They will flower at any season, but the winter months are the most useful, as they are the most serviceable. Few or any of them flower in a greenhouse during that period; all that they can do is barely to support vitality, and that in a very feeble condition. By the return of spring their large succulent leaves are either dead or in a forward state of decay, and it may be that gangrenous manifestation shows itself throughout the entire plant, so that they occupy space that would be more usefully filled with other things.

That such is the case their geographical distribution sufficiently answers the question, being found in India, Brazil, Nepal, and latitudes of a similar character.

This is not the place to enter into an explanation why the constitution of some plants is suited to a warm and others to a comparatively cool temperature; the question is purely a physiological one, and has not, that I am aware of, been definitely settled. The subject, however, is worthy of consideration, as it contains much that is useful and interesting to the cultivator. The number and quality of the flowers depend on the size and fully matured habit of the plant; it will be necessary, then, that propagation begin about the first of February, and a monthly insertion of cuttings continued till the beginning of May, which will insure a successional display of flowers to the end of the following spring. Roots are produced freely with or without bottom heat, in a moderately moist atmosphere of about sixty degrees. Such a state is agreeable to the Begonia during all stages of its growth, but any approximation to an excess destroys the roots, and gives the foliage a transparent dropsical appearance.

There is scarcely any class of plants possessing stronger digestive powers; hence they delight to feed on rich materials, unless with very few exceptions. The soil that I usually employ is fresh loam, leaf mold, and thoroughly decomposed manure, to which is added as much sand as will allow the water to pass off freely, for we should certainly bear in mind that mechanical arrangement has more influence over the health of a plant than the manurial ingredients. Those species that possess a loose flexible habit should, so soon as the shoots have made a couple of joints, have their points pinched off, to give the plant a bushy form. Should it be desirable to grow the same plants a second season, cut them to within a few inches of the pot, and slightly reduce the supply of water, to produce repose, which will enable them to push again more vigorously. When the young growths are about two inches long shake away the soil entirely, reduce the length of the roots, and place them in pots comparatively small for the size of the plant, and subject them again to the same treatment.

As this communication is addressed exclusively to the amateur gardener, I beg to recommend the following species. They are old kinds, it is true, but nevertheless they are good and easily cultivated: Begonia nitida, white; manicata, pale pink; ramentacea, white blush; parvifolia, white; fuchsioides, scarlet; dydrocotylifolia, pink; albococcinea, scarlet and white; incurvata, pink; and spatulata, white.—A., in London Florist.

For the American Agriculturist.

A CHAPTER ON BED-QUILTS.

In visiting the Fair of the American Institute the past year, my attention was particularly attracted by the great number of bed-quilts displayed in one of the galleries. There were several knit of tidy cotton, some close and firm, and others with an open ground, through which a colored lining would make a pretty contrast with the white of the figure.

A silk landscape quilt was suspended from the ceiling, to exhibit to the best advantage. It represented a castle and the surrounding scenery. It was made of pieces less than an inch square, and they were as well arranged as the nature of the materials would permit. It was closely and neatly quilted, yet I could not avoid thinking I should not like to sleep under it. An instructive fear of being crushed by the ponderous weight of those deep stone walls made my shoulders ache in the imagination. I thought of Jack the giant-killer, hidden in one corner of the room, when he feared his two-headed Welsh entertainer would "dash his brains out quite," with a heavy club, if he remained in bed. I looked at the quilt with a feeling somewhat akin to that of "the valiant Cornish man," as he listened to the giant pacing up and down, and muttering,

"Though you lodge with me this night,
You shall not see the morning light."

A bouquet of flowers would have been a prettier design for such a work. It should not be placed in a vase, lest when in a horizontal position the water should run out.

There were patched calico quilts of more varieties of pattern than I can remember. Squares, diamonds, hexagons and octagons, each presented their claims for admiration. Most of them were made of very small pieces, which it must have required days to cut, and weeks to sew together.

Then there were quilts with a white ground, on which were sewed most stiff and unnatural looking birds and flowers, made not in the image of anything in the heavens above, or in the earth beneath, or in the waters under the earth, but needed to have "this a blue-bird," "this is a canary," &c., written near them, as I saw it done on one at the Great Exhibition in 1853. Pieces of yellow flannel were sewed on and stuffed to represent oranges, summer squashes, or something of the kind. Various nondescript, bright red animals followed each other in Indian file. On one of these quilts was a card with this notice: "These quilts not bound for want of time. This one for sale for $25." This showed the estimate placed upon it by the exhibitor, while it was really too ugly to be admitted into the house of any cultivated person.

In the days of our grandmothers, patched quilts exhibited a laudable economy. Calico was very expensive. There were no manufactories in the country. Everything not manufactured in their own looms was brought across the water. They could not afford to waste even the small fragments. They were nicely cut and basted for little fingers to sew together at home or at school, for in those days a skillful use of the needle was considered an accomplishment worthy of receiving a teacher's attention. But now we are not required to spend our time in precisely the same way. What may have been true economy fifty or a hundred years ago, may now be very far from it. "Time is money" is an old saying, and it is also something which money can not buy. With the wisest arrangement most women make of their time, there is too little left for mental improvement. There is constant call for the needle either in making or repairing, and few are the hours which may be devoted to the enjoyment of a book. These few should not be intruded upon by patch-work quilts, that never can vie with pure white dimity or simple calico. How many of these twenty-five dollars would buy. How many valuable books it would add to the library.

It can only be a waste of that which is more precious than money to sew together pieces an inch or two square, when for a York shilling a whole yard of pretty furniture calico can be purchased. How many of the quilts exhibited at the Fair of the American Institute were made by farmers' wives or daughters I can not say; that some of the more grotesque were not, "Brooklyn" or "Williamsburg" marked on the ends, made sufficiently evident.

No life is more to be respected than that of a farmer, but to make it so he himself must be intelligent, and so must the ladies of his household. His leisure hours must be passed in the society of valuable newspapers and books, and his wife and children must be admitted to the same domestic circle. It is not possible to imagine that one of these ugly "twenty-five dollar" quilts could have been made by hands accustomed to turning over the leaves of periodicals or books. They indicate no advanced stage of improvement. As the production of a native African or a Northwest Indian, they might be looked upon with some interest, but as the work of American women, they occasion a far different feeling.

An ordinary patched quilt by no means strikes one so offensively. It is only when they are vulgar in design, or indicate an undue amount of time devoted to them, that they are disagreeable. I should, however, quite as soon think of displaying a pair of patched pantaloons as a patched bed-quilt, and I should derive just as much pleasure from examining one as the other. Skillful mending is as well worthy a premium as any other kind of needle-work, and receives far too little attention. ANNA HOPE.

A man of no account—A ready moneyed man.

MILK FOR CHILDREN—A VERY IMPORTANT SUBJECT.

The brief article in our last number, at page 93, alluding to this subject, has called forth a number of inquiries for further information. We can not devote our space to better purpose than in giving entire the following essay written for the Western Lancet, by Dr. J. U. Heckerman, of Tiffin City, Ohio. We trust every one having the care of children whether in city or country, will read it carefully. It is generally an easy matter to obtain farrow cow's milk not only for children "brought up by hand" but also for those weaned at the age of 12 to 15 months, before they have teeth enough to masticate solid food, and who consequently live much on cow's milk. Whether Dr. H's. conclusions are entirely correct or not, it is certainly better to err on the safe side, especially when, as now, scarcely half of the children born attain the age of three years. Here is what Dr. Heckerman says:

Except bread alone, there is perhaps no article that enters so largely into the nutrition of man as that of milk. As food and drink, it is extensively consumed by the adult portion of our race, it constitutes the exclusive nourishment of nine-tenths of all children under twelve months, and forms the chief diet of the remaining one-tenth.

The chemical and medical properties of milk have long been made the subject of scientific investigation, and long has the writer in vain looked for something from the pen of a senior observer on the point of which he now wishes to direct attention.

It has ever been a desideratum in the rearing of children who are denied the breast of a mother or nurse, to procure milk from an animal in which it approaches nearest to that of the human female, and which shall uniformly have the same constituent properties.

In looking over the tables which are given of the constituents of milk, we seldom meet two authors who agree in their observations; indeed, so great are the discrepancies, that they only serve to confound us in confusion. This circumstance can be accounted for by the different animals experimented upon, the season of the year, the character of the food afforded, and the period of pregnancy or non-pregnancy of the animals at the time of the experiments.

Taking the cow, we find that exercise and food, among other things, greatly affect the quality of the milk. The milk of cows kept in the byre contains a larger amount of butyrine than is afforded by animals running at large, while the milk of the latter abounds more in caseine. So great, indeed is the influence of food upon the secretions, that, when cows are fed upon bitter or strong-smelling grass or herbs, the taste and smell of such grass is imparted to the milk.

Milk, we have already said, forms, the chief diet of that unfortunate class of infants, who are reared by dry nursing, and it is estimated that three-fourths of these die: indeed it has been said that, in London, this mortality amounts to seven-eights of the whole number. Be this as it may, we do know the mortality to be very great, sufficiently so, at least, to demand the earnest attention of every physician.

Standard authors direct children who are thus reared, or who have been early weaned from the breast, to be supported upon milk largely diluted by water and sugar, without, however, any reference to the condition of the animal from which the milk is derived. This we hold to be a serious defect, to be especially so considered, when the remedy is at hand, yet seldom or never used for lack of information upon the subject.

Lasigne found that the milk of cows far advanced in pregnancy, contains neither caseine, sugar of milk or lactic acid, but abounded in albumen and uncombined soda; while from the same animal, shortly after parturition, the three first named substances were found, and albumen was entirely absent.

It is now the received opinion, that upon the accession of a peculiar condition, a woman should no longer furnish nourishment to a former child, and that such continuance proves detrimental to the health of both parties. These views are confirmed by experience, and by the habits of inferior animals.

If the milk of a woman in this condition afford improper nutriment to a child, surely the same fluid from a cow, in like condition, can not be proper. Remembering then, that cows, on an average, are pregnant three-fourths of the whole year, the inference must be that the milk ordinarily derived from these animals is not of a proper character to constitute the diet of infants.

With a view to remedy this universally existing evil, I would suggest to the profession the propriety of having milk cows spayed, in order to procure milk of a uniform consistency. The act of spaying is performed with facility, and is unattended with danger, the only precaution necessary being that no food be given for twelve to fifteen hours, and the milk drawn immediately before the operation; the animal becomes kindly disposed, is easily kept, will yield better, and a larger amount of milk in a given time, and is with great ease brought into a marketable condition.

The steps of the operation upon the cow are the same as upon the calf or the sow, except that it is important to place her upon the right side, unless the operator be left handed. The best time for operating is about four weeks after parturition, as the future amount of milk will depend upon the quantity given at the time of the operation. For some weeks after, the secretion of milk will be small, but will gradually increase until the amount previously given is furnished which we have known continued without interruption (of course less in winter than in summer) for the space of ten years.

It is not expected that every father can be circumstanced to keep a cow for the accommodation of his child; but if physicians were to direct the attention of those who keep cows to the above facts, it would be found advantageous to keep the spayed instead of the ordinary animal, and the proprietors of milk furnishing dairies would readily furnish the supply, if the demand was made. The above facts briefly stated we think of sufficient importance to claim the attention of every medical practitioner, as furnishing him the means of preventing much suffering on the part of advanced infancy and saving the domestic idol in the circle of many grateful friends.

REVIEW OF PRICES, WEATHER, &C.

AMERICAN AGRICULTURIST OFFICE,
NEW-YORK, Jan. 26, 1856.

Since our last summary (Dec. 29), the transactions in Breadstuffs and farm produce generally have been quite limited. The cold weather and deep snow, have obstructed travel and the transportation of produce, while a large stock in the hands of city dealers has prevented any scarcity, or marked elevation of prices. Apples, Potatoes, Turnips, Onions, &c., have hardly changed during the month.

Constant rumors of peace in Europe and favorable news as to the foreign supply of Breadstuffs, have materially checked speculation. Flour and grain went down considerably for a time, but within a week past they have slightly revived under the influence of reports from abroad. Ordinary State Flour has been as low as $7 75 per bbl., but yesterday this brand sold for $8a$8 12—a slight decline from the preceeding day.

We find upon our note-book records of sales of Breadstuffs for the 25 business days ending yesterday (excluding New-Year's day): of Flour, 320,250 barrels; of Wheat, 314,200 bushels; of Corn, 759,500 bushels; of Rye, 200,700, bushels; of Barley, 8,000 bushels. Our last report Dec. 29, for 28 days, gave of Flour. 441,450 bbls.; of Wheat, 598, 900 bushels; of Corn, 1,283,000 bushels; and of Rye, 359,500 bushels.

The following figures show the present price of some of the principal agricultural products, and also the variations since our last report.

		Dec. 29.	Jan. 26.
Flour—Ordinary State		$8 25@ 8 31	$8 00@ 8 12
Mixed Western		8 12@ 8 25	8 12@ 8 25
Favorite and Ex. State		8 37@ 8 50	8 18@ 8 31
Extra Genesee		9 50@11 50	9 00@11 25
Wheat—Canada White		2 10@ 2 20	2 05@ 2 20
Southern White		2 12@ 2 13	2 10@
Southerd Red		1 95@ 2 00	1 95@ 2 00
Western Red		1 90@ 2 00	1 75@ 1 80
Corn—Western Mixed		92@ 93	90@ 93
New Yellow and White		80@ 94	83@ 91
Rye		1 30@ 1 31	1 29@ 1 31
Barley		1 20@ 1 25	1 18@ 1 25
Oats—Western		50@ 53	49@ 51
Cotton—Middling		9¼@ 9¼	9@ 9¼
Rice	℔ 100lbs	4 25@ 5 62	4 87@ 5 50
Pork—Mess	℔ bbl.	16 50@19 50	14 50@15 50
Dressed Hogs	℔ lb.	8@ 8¼	7¼@ 7¾
Lard	℔ lb.	12@ 13	11@ 11½
Butter—Western	℔ lb.	18@ 23	20@ 24
State	℔ lb.	23@ 33	25@ 34
Potatoes—Carters	℔ bbl.	1 50@ 1 75	1 62@ 1 75
Mercers	℔ bbl.	1 62@ 1 87	2 00@ 2 12
Onions—Reds	℔ bbl.	1 75@ 1 87	1 62@ 1 75
White	℔ bbl.	2 26@ 2 50	2 25@ 2 37
Apples—Same as at our last,			1 75@ 2 50

Beef cattle have been somewhat scarce and high, having been kept out of market by the condition of the railroads, but last Wednesday a full supply came in, and prices went down. We quote Premium cattle 11½c. per lb. net or dressed weight; First quality 10c. a11c.; Medium quality 9a9½c.; Poor quality, 8c.a8½c.; Poorest quality 7c.a7½c.; General selling prices 9c.a10½c. Average of all sales about 9½c.

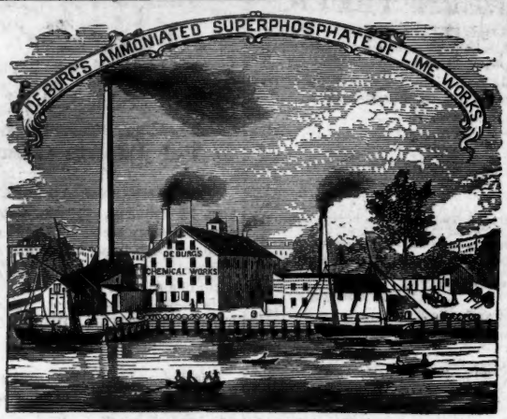
THE WEATHER, the past month, has been very cold. No signs of a "January thaw" have been observable. On the 5th inst. more snow fell during a few hours than ever dropped down in the same space of time within our recollection. On the morning of the sixth the ground was covered with a white mantle averaging nearly two feet in thickness. Full three feet of snow fell during the month. E. Merriam, "the great weather man," reported 36 inches of snow at

Brooklyn Hights between December 26 and January 17. The railroads were everywhere blocked up for several days succeeding the 5th, and only with great labor and expense were the tracks finally cleared so as to admit of regularity in freight or even passenger trains. The Long Island Railroad was snowed under about two weeks.

Merriam reports only 32 hours during 30 days past, in which the mercury stood above the freezing point in the shade—viz: January 3, 9 hours; January 13, 12 hours; January 17, 1 hour; January 18, 6 hours and January 19, 4 hours.

The mercury went down to nearly zero this morning, but now (12 m.) the sun is shining brightly, and water once more drips from the eaves.

P. S.—Monday 12 o'clock M. Nearly six inches of snow have fallen since Saturday. It is now snowing very rapidly, with wind from due north. Thermometer stands at 30° (Fahrenheit).



DE BURG'S
AMMONIATED SUPERPHOSPHATE OF LIME.

THE attention of Farmers and Planters is respectfully called to the above invaluable compound, for their approaching spring planting.

The Manufacturer begs to assure his friends and patrons, that they may always depend upon being supplied with a Genuine and UNIFORM article, for he constantly superintends, in person, the entire process of manufacture and putting up for sale.

This article has now been before the community for a period of five years, during which time it has been analyzed by a large number of Chemists in different places; has been TRIED by farmers upon every kind of soil, in nearly every State in the Union, with almost unvarying success.

In response to my prsposition, two years since, to allow any responsible farmers or Agricultural Societies to take, free of cost, a quantity of it wherever they might find it on sale, and give it the most searching practical trials, I am happy to be able to statethat many of the most influential Agricultural Societies have made such trials, and have pronounced their unqualified approbation of it as a valuable and paying manure.

Please refer, for proof of this, among others, to the Reports of the "Massachusetts State Farm" for 1855, and for the present year.

Perhaps one of the best proofs of its value is the greatly increased demand, unprecedented in the history of artificial fertilizers, and not equaled by guano itself. I have now (Feb. 1st(orders for more than $100,000 worth, received since the commencement of the present year, but having greatly enlarged my works, adding the new factories of which a water-side view is given above, I hope to be able to supply orders to any extent that may be required.

As there are a large number of Superphosphates in market, for the *value* of which I would not like to be responsible, I earnestly request all purchasing to be careful to get the GENUINE article, either from myself or my accredited agents, who are always of acknowledged respectability. For the Superphosphate purchased from such houses, I hold myself responsible for its good character.

The Superphosphate is packed in bags holding 150 lbs. each, and in barrels containing about 300 lbs. each. No charge is made for bags or barrels. In small quantities I will deliver it —cartage free—on board any vessel or railroad leaving New-York City, for one dollar per tun.

CASH PRICE, $45 per tun of 2,000 lbs.

Orders (stating whether in bags or barrels) to be addressed to

C. B. DEBURG, (Sole Proprietor and Manufacturer,)
Williamsburg, L. I.
(Factories two blocks south of Peck-slip Ferry.)

N. B.—Pamphlets with full directions sent on application.
109—116n

PARSONS & CO., Flushing, near New-York, offer for sale their large assortment of APPLES, standard and dwarf PEAR, CHERRIES, PEACHES, PLUMS, and other Fruits.

To their stock of well-grown PLUMS, they would call especial attention.

They also offer a large assortment of the well-known and also the more rare Deciduous and Evergreen Trees and Shrubs.

They also grow for massing, and can offer, at reduced rates by the quantity, the different varieties of Maples, Elms, Lindens, and other Deciduous Trees, with many sorts of Shrubs.

They would also call attention to their Evergreens, which are unusually finely rooted and symmetrically formed. Of these they can supply Norway Spruce, at prices ranging according to size and form, from $10 to $60 per hundred.

Cedars Deodora, Siberian Arbor Vitæ, White Pine, Pines Benthamiana, and others, can also be supplied for planting in masses, at moderate rates.

Their stock of ROSES is always large, and can be furnished by the quantity at greatly reduced rates.

Their Foreign Grapes are propagated from bearing vines.

Their Exotic Department includes the desirable and rare sorts, and the Plants are well grown and thrifty.

Catalogues furnished on application. 105—116

PORTABLE FORGES AND BELLOWS,
(QUEENS PATENT,)

THE best Forge in market for Blacksmiths' work, Boiler makers, Mining, Quarrying, Shipping, plantations, Contractors on Railroads and Public Works, Coppersmiths, Gas Fitters, &c., &c.

Also, an improved PORTABLE MELTING FURNACE for Jewellers, Dentists, Chemists, &c.

Both of these are constructed with sliding doors to protect the fire from wind and rain when used out doors, and for perfect safety and free escape of smoke when used indoors. They are compact for Shipping.

Circulars with particulars and prices will be forwarded upon application.

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Sole Manufacturer, 210 Water-st., New-York.
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BAGS.—NOYES & WHITTLESEY, No. 80 Water-st., (near Old Slip,) New-York,

Manufacture at the shortest notice, and keep for sale, every description and quality of GRAIN, FEED, FLOUR, SALT GUANO, COFFEE, SPICE, HAM, and GUNNY BAGS.

Their facilities enable them to offer at lower rates, than any other establishment in the city.

Particular attention paid to PRINTING and MAKING flour and salt SACKS.

☞ We can make and furnish from 10,000 to 20,000 BAGS per day. 97—109n1214

SHORT HORNS.—Short Horned Cows, Heifers and Bulls for sale. Address

JAMES W. WILKIN,
Wilkin's Villa, (near Montgomery,)
105-110n1233 Orange County, N. Y.

THOROUGH-BRED DEVON CATTLE, AND ESSEX PIGS, FOR SALE.

The subscriber now offers for sale a few superior Devon Heifers, bred by himself entirely from recently imported stock, and in calf by his last imported bull, "OMER PASHA," winner of the FIRST PRIZE, as yearling, at the Royal Show of England in 1855; as also a number of young Bulls and heifers, the get of his three imported Bulls "MEGUNTICOOK," "MAY-BOY," and "OMER PASHA," and out of imported Cows, or their progeny.

Also, constantly on hand, ESSEX PIGS, bred from the best imported stock.

For full particulars as to age, price, pedigree, &c., address,

C. S. WAINWRIGHT,
1246n108—119N9 Rhinebeck, Dutchess Co., N. Y.

NEW-ROCHELLE BLACKBERRY.—Genuine Plants from the Original stock, deliverable in November, March or April, or sale by ISAAC ROOSEVELT.
95—116n1212N14 Pelham, Westchester Co., N. Y.

THE ANNUAL MEETING OF THE N. Y. STATE AGRICULTURAL SOCIETY will be held at the Capitol, Albany, on the 2d Wednesday (13th) of February. Premiums will be awarded on Farms, Essays, Grain and Root Crops, Grain and Seeds, Butter and Cheese, Draining, Irrigation, Winter Fruits, &c.

B. P. JOHNSON, Sec'y.
Agricultural Rooms, Albany: Jan. 1, 1856. 1249n11N108—9

LAWTON'S BLACKBERRY PLANTS.
GREATLY ENLARGED STOCKS.
Prices Reduced for Autumn and Spring Sales.

Sold only in packages of four sizes, as follows:

Packages of Six Plants	$3 00
Packages of Twelve Plants	5 00
Packages of Fifty Plants	15 00
Packages of One Hundred Plants	25 00

Orders supplied in rotation as received, and none sold but the pure plants of MY OWN RAISING.

WM. LAWTON,
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WILLARD FELT, No. 14 Maiden-lane, Manufacturer of Blank Books, and Importer and Dealer in PAPER and STATIONERY of every description. Particular attention paid to orders. 78—130

LARGE LOP-EARED RABBITS.—The above Rabbits for sale, in pairs or single. They are beautifully marked of various colors, and are pure and well bred.

Address, S. W. RODMAN, Boston, Mass.,
1247n108—9 Or the Editor of this Paper.

AGRICULTURAL IMPLEMENTS.—The subscriber offers for sale the following valuable Implements:

ALLEN'S HORSE POWER.—Recent improvements in this superior Endless-chain Horse Power, enables it to run much lighter than any other yet manufactured. The forward end requires a foot less elevation than others. This makes it much easier for the Horses.

ADDITIONAL HORSE POWERS:

EMERY'S one and two-horse chain power.
ALLEN'S do. do.
BOGARDUS' Iron Sweep for one to eight horses.
TRIMBLES' do. do. for one to four do.
WARREN'S do. do. do. do.
TAPLIN'S Circular do. for one to six do.
HALL'S do. for 2 to 8 horses.

THRESHERS—
ALLEN'S No. 1 and 2 undershot.
do. No. 1, 2, 3 and 4 overshot.
EMERY'S overshot.
EDDY'S undershot.
HALL'S do. with Separator and Cleaner.

DRAINING TOOLS of all sizes, and of the latest improvements. Spades, Scoops, &c.

AMES' Shovels and Spades, long and short handles—and every other desirable brand.

HORTICULTURAL TOOLS—A full assortment of Hedge and Vine Shears, Pruning Knives, Hoes, Rakes, Cultivators, Trowels, Forks, Watering Engines, &c. &c.

PORTABLE CIDER MILLS, for grinding and pressing apples, roots, &c., by hand or horse power —a most convenient, economical and labor-saving machine. Price, $40.

HARVESTING TOOLS of every description.

HAY AND COTTON PRESSES—Bullock's Progressive Power-presses, and several other patterns, combining improvements which make them by far the best in use.

CORN SHELLERS—For Hand or Horse Power.

GRAIN MILLS, STEEL and CAST IRON Mills, at $6 to $25, and Burr-Stone at $50 to $250, for Horse or Steam Power.

FAN MILLS—Of various kinds, for Rice as well as Wheat, Rye, Coffee, Pimento, &c.

GRAIN DRILLS—A machine which every large grain planter should possess. They are of the best patterns, embracing several varieties and sizes, and all the most valuable improvements.

SMUT MACHINES, Pilkington's, the most approved for general use.

PLOWS—A large variety of patterns, among which are the most approved Sod, Stubble, Side-hill, Double-mold, Sub-soil, Lock Coulter, Self-Sharpener, &c.

CARTS AND WAGONS—With iron and wood axles, on hand or made to order, in the best and most serviceable manner.

HAY, STRAW AND STALK CUTTERS of all sizes and great variety of patterns.

FARMERS AND MERCHANTS WILL find at my Warehouse every Implelement or Machine required on a PLANTATION, FARM, or GARDEN. In addition to the foregoing, I would all attention to the following, among many others:

VEGETABLE CUTTERS and VEGETABLE BOILERS, for cutting and boiling food for stock.

BUSH HOOKS and SCYTHES, ROOT-PULLERS, POST-HOLE AUGURS, OX YOKES, OX, LOG and TRACE CHAINS.

Grub Hoes,	Picks,	Shovels,
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Seed and Grain Drills,	Garden Engines.	

Sausage Cutters and Stuffers, Garden and Field Rollers, Mowing and Reaping Machines, Churns, Cheese Presses, Portable Blacksmith Forges, Bark Mills, Corn and Cob Crushers, Weather Vanes, Lightning Rods, Horticultural and Carpenters' Tool Chests.

Clover Hullers,	Saw Machines,	Cotton Gins,
Shingle Machines,	Scales,	Gin Gear.
Apple Parers,	Rakes,	Wire Cloth,
Hay and Manure Forks,	Belting for Machinery, &c.	

R. L. ALLEN 189 and 191 Water-st.

GENERAL DEPOT IN THE CITY OF NEW-YORK, FOR ALL DESCRIPTIONS OF
AGRICULTURAL IMPLEMENTS
AND OTHER MACHINERY.

The undersigned having a large Manufactory for the purpose of making all kinds of Plows, Harrows, Seed-Sowers, Harvesters (Mowing and Reaping machines and Grain Cradles of the most approved patent), Threshing and Winnowing machines, Horse Powers, Carts, Wagons, Axes, Hoes, &c.; and having in addition, a large Warehouse for the reception and sale of most kinds of machinery, such as TURNING LATHES, PLANING MACHINES, for both wood and iron, MORTICING and TENONING machines for wood, &c., is prepared to execute orders promptly and in the most satisfactory manner, for all kinds of American tools and implements suitable for EUROPE, AUSTRALIA, SOUTH-AMERICA, and all parts of the World.

Having been engaged for many years in New-York in manufacturing and exporting the above machinery, the undersigned is not only thoroughly conversant with the wants of foreign markets, but familiar with boxing, shipping, &c. Orders need only to be addressed, with remittances, to receive prompt attention,

R. L. ALLEN,
New-York Agricultural Warehouse and Seed Store,
Dec. 1855. Nos. 189 and 191 Water-st., New-York.

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AN INVENTION FOR PRESERVING MEATS.

A patent has recently been granted in Eng land for preserving meats, &c., which the patentee describes as follows:

This invention relates to the preservation of animal and vegetable food and spices by the desiccating process, and consists in first desiccating the meat in small portions, either in a vacuum or by the aid of heated air. The desiccated portions are then pounded and reduced to a powder, which is again desiccated—thereby effectually removing every particle of moisture therefrom, and consequently rendering it less liable to become decomposed after long keeping.

The preservation of meat by drying it, is a process that has long been known, but it has not been brought into general use, as, in consequence of the meat being dried in pieces whether the drying be effected in vacuo or by means of hot air, all the conditions necessary to effect a good and long preservation are not obtained, by reason of the drying being imperfect and incomplete. The meat consequently retains a certain amount of moisture internally, which will eventually cause decomposition to take place.

By grating or otherwise reducing the meat, previously dried in small pieces, a powder is obtained, which, by being submitted to a second drying process, is completely deprived of moisture. This mode of preparation, without interfering with the nutritive qualities and original flavor of the meat, has the advantage of considerably reducing its bulk, by the subsequent compression to which it is subjected, whereby it is rendered much more easy of transport. Seasoning of all kinds is also submitted to the same treatment, namely, first drying and then reducing to powder, which powder is again thoroughly dried. The inventors also propose to combine meat powder with vegetable tablets, by means of compression, so as to obtain a single product, which may be termed compound meat and vegetable tablets.

In place of simply preparing the preserved vegetables in combination with the lean portions of meat, it is proposed to combine them with fat in the following manner The vegetable tablets having been prepared in the ordinary manner, they are submitted to successive immersions in soup, and allowed to dry after each immersion, either by artificial or natural currents of air. There is thus formed over the tablets a layer of concentrated soup, which layer, of course, varies in thickness, according to the number of immersions to which the tablets have been subjected. This covering, when properly dried, forms an even coat over the entire tablets, and other coverings of lead or paper may be dispensed with. When the tablets are to be used, the covering can be easily dissolved in warm water, which is thus formed into soup. These improvements are of great importance in the preservation of vegetable tablets, as the tablets thus prepared contain in themselves all that is necessary for a meal, and all further cooking is dispensed with. These tablets may be made of any nutritive preserved substance, and of any convenient size.

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For explanation of those marked thus (*), see page 104*.

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